BRITAIN'S LEADING MAGAZINE DEVOTED TO THE AMSTRAD CPC 464, 664 AND 6128

NO 28. CHRISTMAS 1987 /JANUARY 1988 SPECIAL ISSUE £1.50

NOT an official Amstrad publication!!

AMSTRAD ACTION

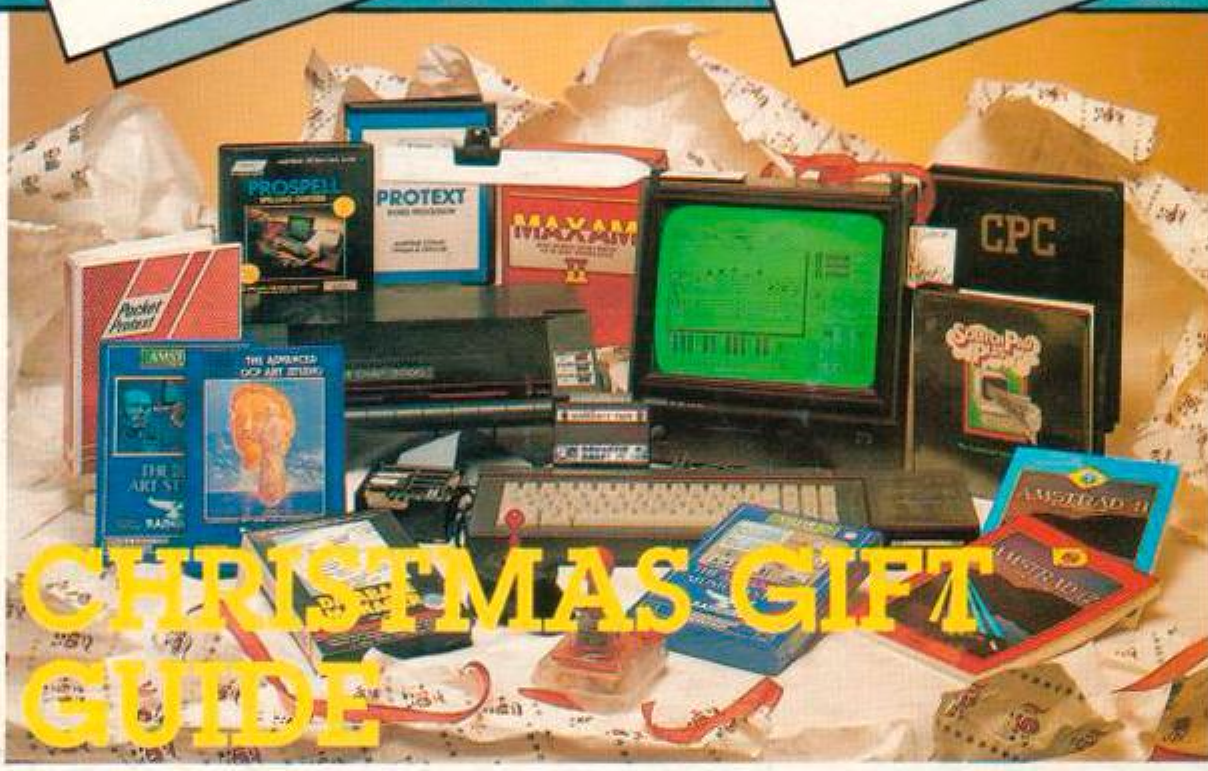
THE MOULD-BREAKING MAGAZINE FROM FUTURE PUBLISHING



DRILLER
Revolutionary Christmas Mastergame



GAUNTLET 2
Super sequel to the arcade smash



CHRISTMAS GIFT GUIDE

MINDBLOWING CHRISTMAS CASSETTE

AA and Gremlin present the best Christmas gift this year

Featuring

The Duct

Stunning new Gremlin game **COMPLETE**



ALL PROGRAMS TRANSFER EASILY TO DISK

6 Amazing AA Utilities

- **Unique** ideas processor
- **Essential** educational program
- **Dynamic** new database
- **Invaluable** disk editor
- **Super** sound sampler
- **Handy** RSX's turn 464 into 6128


You're cool, the engine's hot, the girl's gorgeous, a tank full of gas and an open road.... the rest is up to you..!
Out Run™
START
Screenshot from Amstrad version.
Screenshot from CBM 64/128 version.
Screenshot from Spectrum version.
Screenshot from Atari ST version.
STAGE 3
JPQ



The ultimate experience in motor sports simulation, the absolute challenge to nerve and reflexes. Feel the wind in your hair and the pull of the G-force as you power your way along the highways and byeways, a girl by your side, and open country before you. Experience the exhilaration and excitement of driving a high performance sports car in this teasing time trial where your co-ordination and nerve will be tested to unbelievable limits. Out Run the coin op starred as an arcade sensation. Out Run the computer simulation mirrors this exciting all action spectacle.
CBM 64/128
CASSETTE £9.99 DISK £11.99
SPECTRUM
CASSETTE £8.99
AMSTRAD
CASSETTE £9.99 DISK £14.99
ATARI ST
DISK £19.99
INCLUDES ORIGINAL 'Sound Track' FROM COIN OP VERSION
The machine becomes a home computer reality on December 10th.*
*Atari ST version will be available later in December.
SEGA®
U.S. Gold Ltd., Units 2/3 Holford Way, Holford, Birmingham B6 7AX. Tel: 021 356 3388.
U.S. GOLD® All American Software

THE LINE-UP

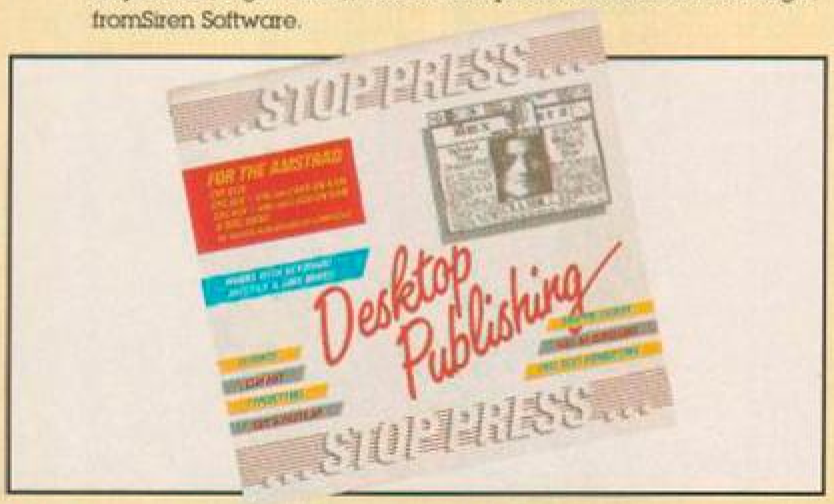
AMSTRAD ACTION CHRISTMAS SPECIAL 1987

FRONT END

NEWS • LETTERS

SERIOUS SIDE

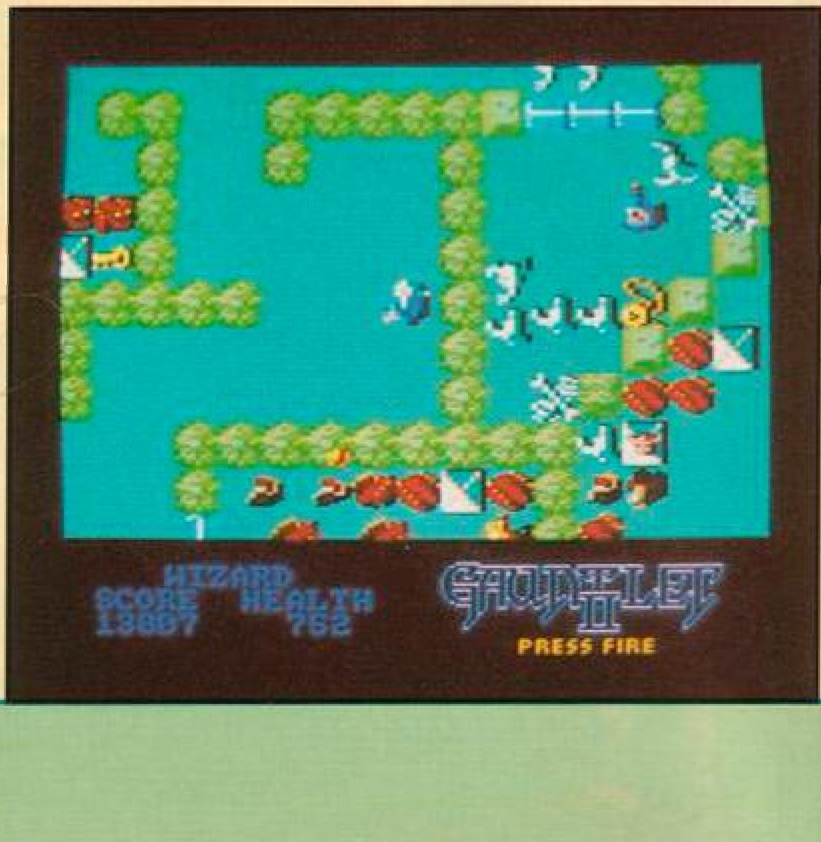
SOFTWARE • HARDWARE • PROGRAMMING





ACTION & ADVENTURE

GAMES • MAPS • PILGRIM



INTERACTION

CREATED BY YOU AND FOR YOU

WRAPPING UP

THINGS TO BUY ● BYE

Gift-Wrapped Gore

At this time of year parents thoughts turn to the awkward business of buying presents for the young 'uns. Perhaps for the first time they'll look at the magazines, advertising and cassette covers that are so much a part of computer games. This year I think many will be surprised, if not shocked, at what they see.

The most widely publicised of the recent controversies is the current trend towards sexism in adverts. There has always been an element of this in the industry because computer owners are predominantly male. In the past games like *Sam Fox Strip Poker* have been viewed with a certain amount of ridicule. Nowadays the situation is a little more serious because many more people are using these unsubtle marketing techniques.

There was Palace's *Barbarian* ads featuring a scantily clad page three girl, Imagine's *Game Over* ad with its infamous cover-up, and others which I'm sure you've noticed. And from some of the artwork I've seen for coming games it's going to get worse before it gets better.

More insidious is the trend towards giving games a film style rating certificate. The most recent of these is *Jack the Ripper* which has been given an 18 certificate.At present this is just a marketing ploy by the software house to get publicity – nobody's forcing them to have the game rated. But it may lead to the "censors" wanting to rate all computer games.

They may sound like a good idea to many people but it's bound to cause problems. For example, on television film makers are limited in the amount of violence they can use, so what are the censors going to make of a game like *Renegade*? If they ask the question "How many people get killed in this game?", the answer "as many as I can manage" may get you a laugh ,but it might get you an 18 certificate as well.

Bob

Amstrad Action
Future Publishing Limited
4 Queen Street
Bath BA1 1EJ

Fax 0225 446 019
Telephone 0225 446 034

Editor: Bob Wade
Technical Editor: Richard Monteiro
Staff Writer: Gary Barrett
Contributors: Chris Boothman, Steve Cooke, Bill Simister
Art Editor: Ollie Alderton
Art Team: Angela Neal, Sally Meddings
Publisher: Chris Anderson
Production: Diane Tavener

Subscriptions: Carrie-Anne Porter
The Old Barn, Brunel Precinct, Somerton, Somerset TA11 7PY
Telephone 0458 74011

Advertisements: Margaret Clarke
Byrom House, 58 Brinksway, Stockport, Cheshire
Telephone 061 474 7333

Cover photographs: Stuart Baynes Photography, Bath. Tel: 0225 66343
Colour origination: Wessex Reproductions, 325 Wells Road, Bristol BS4 0QL
Printing: Redwood Web Offset, Yeomans Way, Trowbridge, Wilts
Distribution: Seymour Press, 334 Brixton Road, London SW9 7AG
Netherlands distribution and subscriptions: Info-Data Computers, Postbus 97, 3800AB Amersfoort.

The AA Christ

We're delighted to be able to bring you another in the fabulous line of cover cassettes. It's a double hit with Gremlin's brilliant game *The Duct*, which has never been released and is complete – not just a one level demo, and a superb batch of utilities from the Type-Ins vaults.

The Duct is a truly magnificent game that outdoes any cover gift you've seen in the past. It's got fast attractive vector graphics, an original game concept, masses of features, tremendous gameplay and ear-stomping sound effects. It's written by David Pridmore, the author of *Tempest*, and in our opinion is an even better game. It's not a demo, it's a complete, unreleased title – it's all there and it's all for you.

The utilities are the pick of the bunch when it comes to Type-Ins. There are new and innovative programs along with a couple of old favourites which are a bit on the long side to type in. Programs like ThoughtLink will amaze you with their power, the database and disk editor will prove indispensable, and the educational program will help even the youngsters get the most from your CPC.

It's our best cover cassette yet and we hope you enjoy it. There's something for everyone in the family, your only problem is deciding which of the juicy programs to get your teeth into first!

The Duct

You are in control of a buggy travelling down a series of tunnels. You view the tunnel from behind the car as the tunnel and its myriad hazards zoom past you.

The ducts are occupied by two main sorts of danger, aliens and barriers. The aliens zoom in towards you and deplete your limited supply of energy when they collide with you. The aliens can be shot with the laser that is fitted to the front of the car. The barriers are themselves of two types which are those that move around the circumference of the duct and some that stay in one position. The barriers can either be dodged around by rotating the duct or you can jump over them by pushing up on the joystick. Collision with barriers also depletes your energy.

Energy can be replenished by driving into the spheres with an E on them which appear periodically throughout the tunnel. The fuel supply in your car is also limited and this is replenished by jumping into the letter F's elevated on top of a pole. If you run out of fuel or energy then the game ends.

Eventually you will reach the end of the duct where you drive the buggy into a hole that takes you to the next level. Your energy and fuel are replenished and when you enter the next duct and things gradually get more and more difficult. The time limit and score are shown in the top right of the screen with the energy and fuel gauges below them.

Summary of controls

Rotate duct to the left	Joystick left
Rotate duct to the right	Joystick right
Fire laser	Fire button
Jump up	Joystick Up
Pause game	"P"
Abort game	"E"





The Duct keys

Unfortunately you can't play *The Duct* from the keyboard, however, the routines below supply this option. The first listing is for cassette owners; the second for disk users. Keys are as follows:

Z – left, X – right, SPACE – jump, RETURN (or enter) – fire.

Tape users

Enter the listing, rewind the cassette to the beginning of side A and type RUN. The Duct will automatically load.

```
1 ' Keyboard control for cassette users
10 ON ERROR GOTO 140
20 DATA 21,00,00,11,00,80,06,00,CD,77,BC,21,00,80,CD
30 DATA 83,BC,CD,7A,BC,3E,01,CD,0E,BC,3E,2C,21,00,C0
40 DATA 11,00,40,3E,2C,CD,A1,BC,3E,2C,11,87,9C,21,00
50 DATA 01,CD,A1,BC,3E,01,32,1E,9B,3C,32,18,9B,3E,7F
60 DATA 32,1B,9B,32,21,9B,32,0F,9B,3E,FF,32,0C,9B,3E
70 DATA 9A,32,0D,9B,32,25,9B,3E,FC,32,24,9B,3E,57,32
80 DATA 27,9B,00,C3,A5,52,4C,6F,61,64,65,72,20,62,79
90 DATA 20,52,70,4D,00,00,00,00
100 FOR t=&40 TO &B0:READ a$:v=VAL("&"+a$):c=c+v
110 POKE t,v:NEXT
120 IF c<>9659 THEN PRINT"DATA ERROR":END
130 |TAPE:CALL &40
140 RESUME NEXT
```

Disk users

Insert the disk with the Duct, type in the listing and run. A file called DUCTKEYS.BIN will save to disk. To choose key control simply enter RUN"ductkeys".

```
1 ' Keyboard control for disk users
10 DATA 21,46,00,CD,16,BD,CD,CB,BC,3E,01,CD,0E,BC,21
20 DATA A4,00,11,00,C0,06,0C,CD,77,BC,21,00,C0,CD,83
30 DATA BC,CD,7A,BC,21,B0,00,11,00,C0,06,0C,CD,77,BC
40 DATA 21,00,01,CD,83,BC,CD,7A,BC,3E,01,32,1E,9B,3C
50 DATA 32,18,9B,3E,7F,32,1B,9B,32,21,9B,32,0F,9B,3E
60 DATA FF,32,0C,9B,3E,9A,32,0D,9B,32,25,9B,3E,FC,32
70 DATA 24,9B,3E,57,32,27,9B,C3,A5,52,44,55,43,54,53
80 DATA 43,52,4E,2E,42,49,4E,44,55,43,54,43,4F,44,45
90 DATA 2E,42,49,4E,4C,6F,61,64,65,72,20,62,79,20,52
100 DATA 70,4D,00
110 FOR t=&40 TO &40+&89:READ a$:v=VAL("&"+a$)
120 POKE t,v:check=check+v:NEXT
130 IF check<>12752 THEN PRINT"DATA ERROR":END
140 SAVE"DUCTKEYS",B,&40,&40+&89,&40
150 RUN"DUCTKEYS"
```

mas Cracker

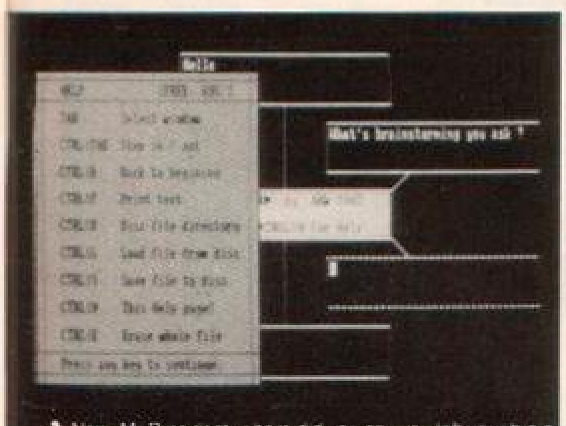
464 to 6128 Eric Prattley Blackburn, Lancashire

This provides the 464 computer with a set of RSX commands that emulate the extra Basic commands found on the 664 and 6128. Included is a short demo. The program installs seven new commands:

|FILL (FILL on 6128) – allows an area to be filled with a particular colour very quickly.
|CIRCLE – draws a circle of a given radius.
|FLUSH (CLEAR INPUT on 6128) – clears the input buffer of anything previously typed in.
|FRAME (FRAME on 6128) – synchronizes the writing of graphics to the screen with the frame flyback. Removes unwanted flicker in animation sequences.
|GPAPER (GRAPHICS PAPER on 6128) – sets the background graphics colour; the area behind graphics drawn on the screen.
|GPEN (GRAPHICS PEN on 6128) – sets the ink to be used for drawing lines and plotting points.
|GMODE – selects the drawing mode.

ThoughtLink 6128 only, Andrew Wood Sheffield, Yorks

ThoughtLink is a computer implementation of the creative thinking technique, brainstorming. It will allow you to expand a central idea into several related sub-ideas, each of which can be further sub-divided.



Now, Mr President, where did you say you left your brain

This is a quick and effective means of collecting ideas in an organised form. Ideal for planning teaching sessions, essays and talks.

ThoughtLink makes full use of the banked memory of the 6128 to store up to 700 linked ideas – and uses 6128-specific bank switching routines which means it won't run on any other computer.

Transferring to disk

On side A of the cassette, following *The Duct*, is a file called ONDISK.BAS. It is of use only to disk users. If your machine hasn't a disk drive then fast forward to the next program.

Ondisk will automatically transfer all the cassette files, including *The Duct*, to disk. To execute the program enter RUN"ondisk.bas"; instructions and prompts are contained within.

Sound Digitizer Richard Monteiro

A program which first appeared in the December 86 (issue 15) of AA. It allows you to record sounds, music and voices into the CPC and play them back through the Amstrad's internal speaker. The term for this being sound digitizing. Several commercial games use this technique to spruce up their product, now you have the opportunity.

Simply insert a music cassette into the tape deck and enter the command |RSOUND, data start, data length. The variable data start refers to the position in memory that you wish to place the recording (for example, |RSOUND,&3000,&2000). The second variable tells the computer how much memory you wish to use for the recording.

To play back a recording simply enter |PSOUND, data start, data length. Still confused? The cassette contains further instructions and a demo which should put you on the right track.

Disk Editor disk only, Martin Shroeder West Germany

Issue 26 saw this lengthy listing from Martin Shroeder. It simply allows you to inspect, and change, any part of a disk. Forget about commercial disk editors, this one is just as good.

The program will ask you for a drive and track number. Enter A (if the disk you wish to examine is in drive A) or B for the drive and any number between 0 and 39 for the track.

Disks are split into 40 concentric tracks numbered from 0 to 39. Each track is split into nine slices (sectors). Sectors can have any number, however, Amsdos only recognises those starting at &41 (CPM format) and &C1 (data format). Disk Editor allows you to look at many non-standard formats along with the standard bunch.

Tape loading instructions

Before loading, rewind the tape completely and zero the counter on your cassette deck.

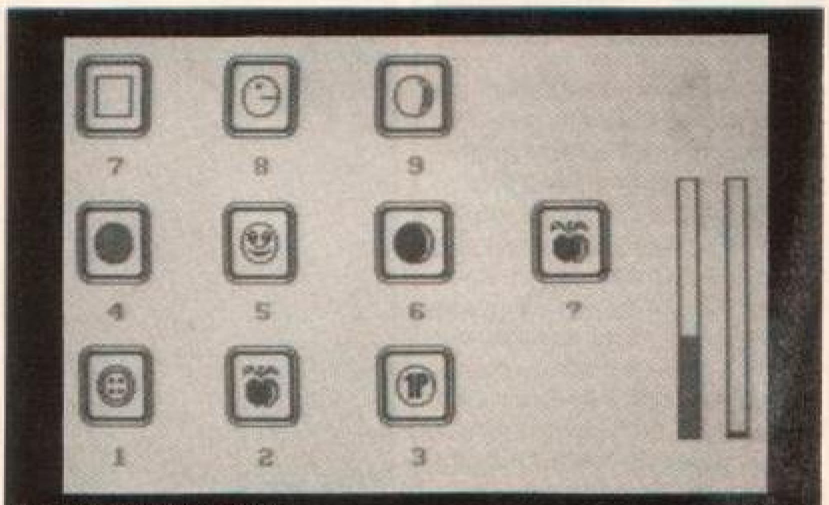
Owners of the 464 enter RUN"" followed by return – alternatively hit the Ctrl and small enter keys together. If you have a 664 or 6128 then |TAPE:RUN"" will do the trick. The program will start loading.

If you have a 664 or 6128, and don't have a REMote lead going in to the cassette deck, then make sure you press pause when a program has loaded, otherwise the tape motor will keep running and you'll lose your position.

Please note that every program has a help file before it. You may list the instructions to either screen or printer.

First Numbers M Hadi Bolton, Lancs

This is an ideal program for the early learner. It draws nine delightful designs on the screen. Each picture has a number underneath. Another picture, corresponding to one already drawn, then appears. The youngster must hit a number between 1 and 9 to match it with an existing picture. Fun, but at the same time educational.



Pretty pics for early learners

Database Mark Rowbottom Leeds, Yorkshire

A database can be compared to a card-index in which you can store any sort of information. A simple example would be names and addresses. Each card is known as a record, and on each record are several fields of information.

Database has room for 125 entries (or records) with eight fields per record each – not a patch on the heavy-duty commercial packages, but enough to store a collection or an address and telephone list.

REACTION

The address to send your letters to is: Reaction, Amstrad Action, 4 Queen Street, Bath BA1 1EJ. Remember we can't reply personally to letters, otherwise we wouldn't have time to produce a magazine each month. All mail-order and subscription enquiries or problems should be aimed at our Somerton address listed on Line-up - we just have to pass them on if they come here.

Fruitless Search

I have been trying for ages now to find out where I can get hold of a copy (original of course!) of the Amstrad version of a 1981 Arcade Game called: *Mr Do!*

At the recent Amstrad Computer Show held in Manchester I was told that it comes under the name of *Fruity Frank* and that it is a game that a lot of dealers would love to get their hands on.

Graham Burton
Manchester

Fruity Frank is indeed the game you need, and I'm pleased to say that the company that produce it, Kuma, still sell it. You can contact them on 07357 4335, or write to them at 12 Horseshoe Park, Pangbourne, Berks RG8 7JW.

Male pursuit

Can you recommend a cheap, yet good printer? The only ones I've seen are about £150, too expensive on my pocket money! I've a 464.

It's been puzzling me, why is computing "tagged" as a male pursuit? Many more males than females write to you and only one of my pals is a fellow key-basher. I do computer studies at school and girls are outnumbered ten to one by the blokes, why? It's not macho or terribly "swotty", so why are girls the minority? Come on girls, liven up to some Amstrad Action.

Becky Lyons
Birmingham

Unfortunately the only easily CPC compatible printers you'll find do weigh in at £150. Amstrad's own DMP 2000, mentioned in the gift guide, is about the best you can get for the price and quality.

As for computing being a male bastion, it is sad but true. I can't really see any reason why that should be the case, except for the existence of chauvinism and sexism. For some obscure reason back in the mists of time computing became a predominantly male pastime, and now the games, literature etc cater for that audience, helping to reinforce the problem. Personally I'd like to see a much wider spread of users in computing because it's something that can break boundaries of age, sex, race and creed.

Frustrated role player

I am exasperated! I am an avid fantasy role player (mostly with "Advanced Dungeons and Dragons"). I have yearned for a (decent) computer version.

Back in my Spectrum days, I saw the light of hope in *The Halls of the Things*, but, though a good game, it wasn't really the kind of thing I had hoped for. But then, *The Dungeon Master* (I think that's what it was called) by the same firm made me beam with delight... and then groan with disappointment. I played for hours and hours with the very excellent *Out of the Shadows*, though even that was no substitute for the real thing. I began to think it was possibly beyond my humble Speccy.

Now, thanks to Mr Sugar, I own a CPC 6128 with its 128K of memory and capability of fast retrieval of huge amounts of data via disk drive, my dreams must surely soon be answered, well, mustn't they? Wrong! The nearest thing on the Amstrad I've seen is *The Ring Of Darkness*, which I thought was pretty good, but the challenge only lasted for me for a

Stuck in the software rut



I feel I must write to express my growing disillusionment with the software industry as a whole. I have been computing for four years and the sense of excitement with every new game I bought has gone. The eagerness I had to rush home and load up my latest graphical extravaganza has been drained, and now I rate very few games at all. In fact, the last game that I enjoyed to the point of playing until three in the morning was *Dynamite Dan II*. It had that elusive quality of lasting interest, where you could play it to death and think that you'd seen it all and then, a couple of weeks later, something new and interesting crops up.

That is a quality which, I am sad to say, is lacking in far too many games these days. In the days of the Spectrum 48K, which was probably almost completely responsible for the industry today, companies with games such as *Avalon*, *Tir na Nog*, *Underwurlde* and *Knight Lore* were continually pushing this humble computer to the limits. Programmers were always finding new and better graphics techniques and they were not content to rest on their laurels.

I remember *Lords of Midnight* and the advertising campaign that Beyond produced for it. I went down to the shops every week in anticipation of it being in and when it finally did arrive I was not disappointed. Nowadays, the hype of many an advertising campaign is not matched by the games.

Hewson produces probably the best games on the market and have replaced Ultimate in terms of quality. Each time they release something you know it will be good.

Unfortunately, software firms are content to churn out arcade conversions and film tie-ins, in the knowledge that they will sell. Original games are few and far between and I have to say that it is solely the consumer who is to blame. It is the buyer of these products who is rejecting the innovative and the games publishers are wary of producing them.

Budget games are big business and along with compilation tapes, these games make up the majority of the market. To prove this point, I will take a look at the Gallup Chart. An astonishing fifteen of the top twenty are budget titles, including the number one. There are only two full price, "original games" and one of them, *Barbarian*, despite being excellent, is pretty unoriginal. The other, *Exolon* is only there because it is a piece of top quality programming. Of the other three, one is a compilation, one is a film tie-in and the other is an arcade conversion.

I think the industry is stuck in a rut and will have extreme difficulties picking itself up again. I for one am limiting myself to utilities and Infocom and Magnetic Scrolls software. I look forward only to hearing your, and other readers, views on the subject.

Jonathan Hall
Edinburgh

Unfortunately I can only agree with you. We try to encourage original, innovative software when it is released but if it doesn't sell well there isn't a lot anyone can do. As you say it really is down to the consumer – if coin-op conversions, film and TV licences, compilations and budget games are what you want and buy, then that is what is going to be produced. Personally I find that a depressing prospect and would be interested to hear other readers thoughts on the subject.



while until I became invincible and mapping it was the only lasting fun. Oh, I'm forgetting *Mandragore*, though from what I've seen and heard it's probably best to.

I have heard of a game called *Wizardry* on the Apple, which is supposedly the nearest thing to AD&D available, why is this beyond the 6128? Also, recently I have seen (and drooled over) the Ultima series and *Bard's Tale* on the CBM64, and what makes me angry, apart from my Commodore owning friends delighting in these types of games. The Commodore may have slightly better graphics and sound (though sometimes that is debatable), but the only really important limiting requisites for role playing computer games is surely the memory and disk drive capability, in which fields the 6128 is far superior, (have you seen how slow the C64 disk drive is?). A couple of my friends at work for Microprose in Tetbury (who are currently selling the Ultima series), one of which, (the one who has the Ultima series), I hassle regularly with my gripe (if you'll excuse the expression), but to no avail. One reason that comes up is that the 6128 doesn't have sufficient following to make conversion economically feasible, but *The Pawn* didn't do bad did it?

There must be thousands of 6128 using role-players or potential role-players that would rush out and buy a (decent) RP game. Please, please print this letter and then maybe others will be urged to show their support and pressurise the software companies. And as a more general point: the more good games that are made, the more Amsters their will be, the more money can be made (both for Amstrad and the software companies) and the better it will be for all. So pull your finger out, companies and make the effort for the CPC's. In the long run, you know it makes sense!

Mr D L Henson
Tetbury

Over to our role-playing correspondent Gary Barrett...

Finding anything that is remotely role-playing on a computer is very difficult and the Amstrad is probably one of the worst supported. Swords and Sorcery *by PSS was an attempt that didn't quite work out.* The Bards Tale *by Electronic Arts is currently being converted to the CPC's, we'll review it when it arrives. US Gold and SSI have acquired the rights to Dungeons & Dragons and Advanced Dungeons & Dragons (AD&D). US Gold are to produce arcade actions games on the theme and SSI will concentrate on the role-playing side of the project.* The Bards Tale *should be out early next year and* AD&D *will be out sometime next year, but don't hold your breath.*

Repton required

I have just played *Repton 3* on my friend's BBC. I thought the game was very good. On the inlay card there were screen shot from various computers. One being from the Amstrad I have tried in vain to get hold of the game. Is it really available? Does it have a construction set for the Amstrad? If not, please advise me on a similar game with a construction set also, because that was the best bit! Is *Boulderdash* that type of game, and is it what I want?

Amelia Wildey
London

Superior Software are planning to release Repton 3, with construction set, for the Amstrad in the spring of '88. They don't have a firm release date yet but we'll keep you informed, or you can contact Superior on 0532 459453.



"OVER HERE HOSKYNS – YOU'RE NOT GOING TO BELIEVE THIS BUT..."

Return of the reverse sweep

I saw the letter to you from Russell Potter of Australia in your November issue.

I am secretary of my cricket club and for the last two years I have been using a program which I have written for calculating the averages of our club over the season. It is suitable for a club playing a series of one-innings matches. For each match the details of the Home Team's performance are entered. The program allows the data to be saved on disk and added to or altered later. This means that you can enter each match as it is played. You may then print out the details of the season's performances. Averages are given for each player for both batting and bowling.

Recently I have offered the program (available on disk based Amstrad's) for sale at £10.00. At the moment it does not analyse the data more fully - for example to analyse how each person was out - though it does collect some of this information.

The program is written in Pascal as it is a fairly sophisticated program and so probably not one you would wish as a Type-In. It is rather longer than a one-liner which you did print of mine last year on Bingo!

Stephen Fearnley
88 Abingdon Road
Drayton
Abingdon OX14 4HT



Random access

I have recently become the not so proud owner of a CPC 6128 and ache for the opportunity to sound my disappointment where it will be heard and hopefully serve as a warning to others.

Having previously owned a 16K Spectrum and then a Commodore 64 I am very familiar with the failure of home computer manufacturers to produce machines which are friendly and do not require a multitude of add-ons, interfaces, leads and supplementary software to be purchased at great expense before the machine becomes a reasonable computer (not games machine).

I thought I had found a reasonable machine in the CPC 6128. My needs were simple. I required a machine which would allow me, at no extra expense, to write some fairly serious data processing packages and business applications in Basic for local small business. The CPC 6128 was the right price and required no extra hardware as the disk drive was built in. I was well pleased until, to my horror, I discovered that a machine which had a built in random access backing store did not also have the software to support the full use of such a device. I am referring to the failure of Locomotive Basic (a loco Basic if ever there was one) to support random access files.

In essence this means that I now have to buy a Basic which does support random access files. And what will the consequence of this be? Well, for starters, in one swift stroke, the resident Basic is redundant, a waste of memory just because it won't support random access files. It might as well not be there as far as anyone who requires random access is concerned. For the sake of a few commands I will have to spend upwards of £30 for a Basic which will take a considerable chunk out of my Ram. Further I will probably lose the use of CPM as Amsdos could be overwritten by the new basic and the new basic might not support CPM.

Therefore simply to use random access files I have to load a different Basic, possibly lose Cpm and be left with code which cannot be run unless the new Basic is residing in memory. I am completely dumb founded by Amstrad's omittance and very angry at the situation this leaves me in. Obviously it is my own fault for not investigating the machine more deeply. Silly of me to presume that a machine with a built in disk drive would not also support that random access device fully.

Beware ye who propose to buy a CPC 6128 (or Upgrade their machine with a DDI-1). If you want a disk drive not only for speed, but for its real use, random access, forget it, super charge your tape device.

Now that I have got that out of the way, could you advise me on the best or most reasonable basic which will give me Random Access. I am also interested in Cobol and Pascal as I used these on a mainframe at university. Could you please advise me on how close a CPC 6128 version of these two languages would be to what I have used. In particular, the availability of Levels in Cobol (ie. 1,2,3,88) and the extent of the table and sort commands.

Paul Connally
Newcastle

There is no need to buy another version of Basic – first because there are no other decent versions for the CPC machines, and second there is a piece of software that gives your system random access; namely Instant Access. *The product is available from Minerva*

Systems (0392 37756) at £29.95.

Hisoft is the best company to contact regarding programming-languages. Phone 0525 718181.

Poster posting

After making enquiries to the major software companies about current and forthcoming releases, I was surprised to receive not only the requested information, but also posters, fact sheets and all sorts of additional articles of interest, as you can see:

Electric Dreams: 5 posters, fact sheet, and price lists
Virgin: 1 pricelist.
Hewson: 3 posters and 1 pricelist
Gremlin Graphics: 2 posters, 1 pricelist, various special offers and a *Thing On a Spring* mobile.
Free Scape/Incentive: 1 poster, information on *Driller* and 1 pricelist
Elite: 1 newsletter and 3 posters
Domark: 2 posters and 1 pricelist
Ocean: 1 returned letter stating postage and envelope must be provided
Martech: 5 posters and 1 pricelist
Palace: 1 poster, 1 fact sheet and 1 pricelist (more posters can be obtained for 50p).
Mirror soft: 1 catalogue and a fact sheet

I was impressed with the replies from Electronic Dreams and Gremlin Graphics, who show consideration towards trade enquiries. After receiving replies from G.G. and E.D., when Ocean's reply arrived I was not only disappointed but confused, as I cannot understand how such a large and successful company could be so naive to trade enquiries.

Ian James
Cramlington

I think your criticism is unfair. Software houses get pestered for information and review copies from hundreds, if not thousands, of sources. It does them credit that so many have responded to your enquiries. Obviously it's in their interests to encourage possible customers and keep good public relations, but all this freebie material costs them money, so they can't throw it around like water. Believe me, the costs of producing high quality promotional literature and posting it out to large numbers of people can be very high.

And one more thing...

I was leafing through AA 21, and noticed the Ocean advert inside the front cover. Pictured along with others was the cassette inlay picture for *Mutants*. Now, the big red guy in the middle is wearing some sort of space helmet. That space helmet bears an uncanny resemblance to the man's helmet on the *Game Over* advert on the first page of AA 25.

It looks like Imagine is playing up, doesn't it? As well as the "Cover up" they've also copied an idea, changed the colour scheme a tick, and put it out on their own product.

Is it possible to use the expansion port to control models, home-made pcb's etc, without having to buy anything except an edge connector and a length of ribbon cable?

The *Arkanoid* poke (Cheat Mode 25) doesn't adapt properly for the 464. By replacing line 180, you are also knocking out the "Next" at the end of it. Should line 180 read:

```
180 if s<>7519 THEN GOTO 240 ELSE NEXT
```
?

The game itself is brilliant - in my opinion it should have been a Mastergame. I think that the start-up routine has been cleverly done - 2-way scrolling right through all sides of the border. In the middle of that message, though, if you find it's too slow press fire and you go straight onto the game.



"NOT MUCH FUTURE IN THIS ONE..."

When loading, why do software companies always give you that dazzling border flash? I really dislike it, it does nothing for the game. If they're making a show of how clever they are, then why don't they give us some full-blooded, 3-channel music, or a demo mode while the game is loading? Or if they just want to show you that something is happening, then why not go for something like the *Music System*, where there is a constant hex-count - at least you know that your Arnold (or you) is not in a coma!

Isn't it strange how, if you wait for long enough, all of the decent £10 games drop to £1.99, eg. *Red Arrows, Boulderdash, Think*, and other classics.

Why doesn't someone release a kind of driving test simulator, on a common driving school as the Austin Metro? Points could be monitored such as economy driving, safe driving, proper use of indicators, gears,etc.

Rufus Cable
Co Mayo

1. Ocean and Imagine are different labels from the same parent company.
2. Bernard Babani Ltd publish a number of books on controlling external hardware devices, including Electronic Circuits for the Computer Control of Robots, EC for the CC of Model Railways *and* Easy Add-on Projects for Amstrad CPC Computers. *Their address: The Grampians, Shepherds Bush Road, London W6 7NF.*
3. No. We replaced the wrong line. Replace line 190 with the line printed originally.
4. There is no number four.

Spectrum + Amstrad?

I (as you may have noticed from my writing accent) am Australian. I have been on your wet, cold, soil for 2 months now.

Recently, I saw a picture of the Spectrum +3 and noticed that it has the same looking disks as my CPC128. Is this true? Is the Spectrum speaking in a foreign computer language? Are they fake? Can I buy Spectrum games on disk for my Amstrad? Are they cheaper?

D J Lacey
Great Eversden

The Spectrum +3 is not compatible in any way, shape or form with the CPC's. It is the disk version of a very popular computer over here in Britain. There is a lot of Spectrum software available, but none of it is compatible with the Amstrad and it's mostly inferior to Amstrad versions of the games anyway.

Return of the small trader

Thank you for reviewing our CPC *Small Traders Pack* and *Invoicer* in the November issue of AA.

Generally, the comments were favourable with the overall conclusion that this software offers an easy and cost-effective way of computerising a small business. Thus our objective has been achieved.

However, I would like the right to reply to one or two criticisms which may have misled readers. Firstly, it was stated that if one were to press the Esc key during a program run, all data is lost. Not true. If the Esc key is hit, the screen freezes (useful for listings we thought). Press any other key and you simply return to the program stop - hardly likely to occur by mistake. In any case, the Esc key has been disabled for the production version.

Error-checking was claimed to be "poor" by your reviewer, yet no specific examples are given. In fact, there is an in-built error-detection routine so that, for instance, one attempts to load a non-existent file, the program will not crash. Nor is it possible to enter a "silly" date in the ledgers. To suggest, as the review does, that it is a programming fault if a disk is removed during loading and the system crashes, is most unfair. One has to rely



"BITS OF EIGHT, BITS OF EIGHT..."

on a certain amount of common sense being applied.

Another claimed fault is lack of memory space. Is 500 transactions in each ledger per month/quarter and 500 items of stock per file really too few for a small trader? Surely anybody needing more space would not be using a CPC?

Finally, the review suggests that it's not worth buying the *Invoicer* as well as the *Traders Pack*. Yet for £10 extra you get a system which not only calculates and prints all your invoices but automatically compiles statements, too. Surely, that has to a real time saver as well as good value?

Steve Denson
SD Microsystems

We'd like to reiterate that we do think the Pack is good value for money. It's nice to hear the Esc key has been disabled on the production version, although, as you state, it was not a serious problem. The points about error checking and memory space are open to interpretation, but again they are minor points which perhaps we did overstate. As for the Invoicer, we were merely trying to point out that it would be nice to have the two packages together, rather than buy them separately and thereby duplicate some of the operations.

We hope the product is doing well for you and look forward to reviewing further releases in the future.

Need more work

There are points I'd like to make about AA. I really think your magazine needs more work. Your 25p charge increase was unfounded - readership must have risen after



"WELL, HE WAS THERE A MINUTE AGO..."

the Amtix demise and no other computer mags has.

For god sake get rid of these awful dreary front covers - the October issue was an awful sight. It makes me cringe and makes AA look drab and boring. Employ a decent artist like your competition does and stuff the photographs.

However, the text layout, reviews and screen shot colour photos are excellent and the paper quality is very good.

Modems and RS232 interfaces are very expensive, what is the cheapest but best value for money modem you can recommend on the market? Are there any acoustically coupled modems about? - I've never seen any.

C Stevens
Gloucester

*Other magazines have had price rises, reflecting the fact that £1 cannot stay the normal price indefinitely while our costs rise. Amtix's readership was relatively small and had a large degree of crossover with our own, thereby making their demise negligible in its effect on us. Covers – we've changed, OK? As for the competition's covers, you have **got** to be kidding.*

Protek make an acoustically coupled modem called the 1200 Modem, they can be contacted at: 1A Young Square, Brucefield Industrial Park, Livingston, West Lothian EH54 9BX

Backup buyer

Having read Bob Mackenzie's letter (Reaction, November 1987), I would like to say that I agree with him in principle, but having just purchased Multiface II, I cannot, in all honesty, practise what he preaches.

I own a CPC 6128 and have great difficulty in finding disk-based software in my area. Unless I use mail-order firms, it is often necessary to buy taped software. They are, of course, much cheaper than disks, as lots of your readers have said many times before (to little or no avail, judging by current disk prices!), but oh!.. those loading times! Having got two disk-drives, I do prefer to use them.

I purchased the Multiface II for the purpose of transferring programs to disk for speedier loading, and for backing up software already on disk, totally for my own use. I'm sure that the majority of CPC users who own a "Black Box" have the same idea. The minority who are out to make themselves a profit at the expense of software houses, would find a way with or without "Black Boxes", or indeed with or without any sermons on piracy from your magazine.

I must say, I found Mr Mackenzie's comment on your average reader rather amusing. At 39, married with two children, I might be rather flattered, in fact downright chuffed to be referred to as a schoolgirl, but definitely not as a schoolboy!!

Mal Hamilton-Warwick
Isle of Wight

War wanted

I do wish you had more wargames in your mag. In AA 27 I counted fourteen arcade games and only two wargames. I don't think any one at AA has a thought for us wargamers.

You could have a section of you mag devoted to wargames, a bit like action test but with wargames, this would also fill the empty spaces of your mag when there aren't exactly one hundred pages.

Kristofer Leslie
Edinburgh

I happen to like wargames and we do review them when they come out. The only problem is that they aren't produced in very great quantity and don't have a large enough following to justify a section all to themselves.

Hire games or higher standards

After I have gathered all my frustrating matters I am now writing coolly to you. Before, I congratulate you on both your excellent magazines.

First about software hiring. You should know there are now about seven hiring libraries for the Amstrad. Some of those cost as little as £1.45 for two weeks and you can hire all the newest games - even those you haven't reviewed yet. In my personal experience, most games today can only offer a one week enjoyment, this means hiring is the best option.

I think there are over 30,000 Amstrad users who have joined one or two. This obviously means that Amstrad software sales figures would greatly decrease. The reasons are the low standard of software produced by British software houses. Look at the American houses, no arcade conversion, no silly original game. Just realistic, imaginative, creative masterpiece. There are still too few American houses producing software for CPC which is a great disgrace. Back to the point, I hope software houses can put a stop to hiring and produce better games.

Good after sale service is extremely important. I have recently bought *Discovery +* from Siren and when I tried to transfer a game, my disk drive went funny and failed to load, and failed to load other games. Debenhams immediately gives a new keyboard to me (I have a CPC 6128) without charge or wait. I then sent the disk to Siren but after 3 months nothing is heard.

Who forgot to sign their name then?
Thornton Heath



AMSCENE

Monthly update on what's new on the CPC scene

Rampaging Knights

Ramparts on the Go/US Gold label features two marauding knights out on a destructive binge through 90 levels of castle crushing and peasant pummelling. It bears some uncanny resemblances in game concept and name to *Rampage* from Electric Dreams. £9.99 will buy the cassette and £14.99 the disk. It arrived just too late to be reviewed in this issue, full review next time.



On the Dole

Andy Capp is about to wander lazily across the screen in a game based around the drunken, idle layabout. Somebody has stolen his dole cheque and he is more than a little upset about it. Andy has a week to recover the cheque or else.

Andy Capp is available from Mirrorsoft and should hits the streets in mid December. The tape will cost £9.95 and the disk £14.95.

Universal Mastery

Masters of the Universe is Gremlin's next release and is based on the cartoon series and toys of the same name. He-Man pits his wits against Skeletor and his evil cronies. It will be available in mid December and costs £9.99 on tape and £14.99 on disk.

Beware of the Spider

ABA Systems has taken over the UK and European distribution and marketing rights for the *Fly* and *Spider* alarm products. Both devices are sensitive to the slightest touch or movement and let off an ear piercing scream when disturbed.

The *Spider* protects up to five pieces of equipment in close proximity to one another and the *Fly* protects just the one item. The *Spider* costs £39.95 and the *Fly* £29.95. For more information contact Mark Hargreaves on 01 734 9681.



Hanging on the Telephone

Dataphone Ltd has launched a new modem called the Demon 2. It features full computer control, auto dial and auto answer. The modem can handle 1200/75, 300/300 and 1200/1200 half duplex.

The Demon 2 costs £80 and software is available for £50 that will allow it to be connected to Telecom Gold or Prestel.



Background Music

First Byte has announced the Micro-Music Creator – a three channel music composer and sound digitizing package. Correct musical notation may be entered on treble and bass clefs and then played back.

Each note may be any of 16 pre-defined sounds, from piano to cow bell. Once a musical composition has been completed it can be saved as an RSX (bar command) and then called from within your program where it will play in the background, or under interrupt.

Speech and music can be digitised and played back at various speeds. There are facilities to cut, copy and paste sections of digitised data. And like the music, digitised sound may be incorporated in your software.

On cassette for £9.95, disk for £14.95 and rom for £24.95. First Byte are on 0935 851265.

Christmas Stocking Fillers

Christmas is the time when games are bought by the sack load to fill the holidays with the noise of exploding aliens, screeching cars and hollering heroes. Most companies try to attract attention not only with big games, but with compilations of old games.

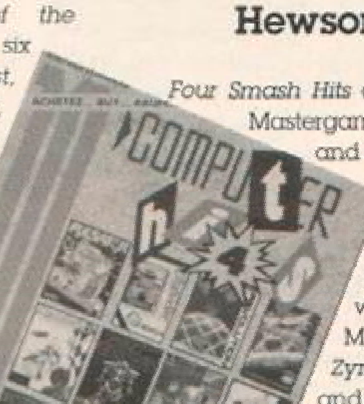
They are great value if you haven't got the games on them. The only trouble is choosing from the vast array. To solve the problem, here's our guide to what's available this Christmas. As an indicator of the quality of the collections we've noted which games were Mastergames or Raves in their original incarnations.

Beau Jolly

Computer Hits 4 is the largest compilation from Beau-Jolly yet and it contains 12 games, 2 were Mastergames and 5 were Raves. The Mastergames are *Spindizzy* and *Revolution* and the Raves are *Sacred Armour of Antiriad, Starquake, Triaxos, Pulsator* and *Deactivators*. The other games are *City Slicker, Bride of Frankenstein, Uchi Mata, Elektraglide* and *Dandy*. *Computer Hits 4* costs £9.95 on cassette and is out now.

Five Star Games 3 has seven titles on it, all of which are either Raves or Mastergames. The Mastergame is *Way of the Exploding Fist* and the six Raves are *Tempest, Trapdoor, Tau Ceti, Aliens, Firelord* and *Strike Force Harrier*. £9.95 will buy you the cassette and £14.95 the disk. *Five Star Games* should also be in the shops now.

Both these compilations are excellent value and have a wide variety of game types to choose from. Bound to be big sellers this year.



Ocean



Game, Set and Match is the sporting compilation to beat them all, or perhaps in which you'll always get beaten. There are no less than 10 games and over 20 events. *Barry McGuigan's World Championship Boxing, Hyper Sports* and *Daley Thompson's Supertest* were Raves and the other games are *World Series Baseball, Matchpoint, Jonah Barrington's Squash, Pool, Ping Pong, Super Soccer* and *Basketball*. The cassette will cost £12.95 and the disk £17.95.

Magnificent 7 is the second Ocean compilation which has three Mastergames, three Raves and one that we won't talk about. The Mastergames are *Head over Heels, Wizball* and *Yie Ar Kung Fu*, the Raves were *Arkanoid, Frankie goes to Hollywood* and *Short Circuit*. The last game is *Cobra*. The cassette costs £9.95 and the disk £17.95.

Live Action features five of Oceans recent combat games. *Green Beret* is the only Rave and the other four are *Top Gun, The Great Escape, Rambo* and *Army Moves*. It will cost you £14.95 on disk and £9.95 on cassette. It's available now.

The best of the compilations looks to be the *Magnificent 7* which features some exceptional arcade games. The selection on the other two collections is less impressive, but GSM will clearly appeal to sport fans.



Hewson

Four Smash Hits contains two Mastergames, a Rave and an unreleased title. *Exolon* and *Ranarama* were Mastergames, *Zynaps* a Rave and *Uridium+* has not been released before. £9.95 will buy the cassette and £14.95 the disk.

This also looks like one of the better compilations on offer, the only question being over the quality of *Uridium +*. The release date isn't certain yet but we'll take a look at *U+* when it arrives.

Kidsplay

Kidsplay, The Back Pack is a compilation of ten games, the proceeds of which will go to the NSPCC. *Marsport* was a Mastergame, *Tempest, Starion, Knightshade* and *Deactivators* were Raves and *Xeno, Nomad, Starstrike, Nightgunner*, and *Monty on the Run* are the other games. The price is £9.99 for cassette and £14.99 for disk.

This is the only charity compilation this year, and as such is obviously worth supporting. The titles are all of quite a high standard, and spread across a range of tastes.

Gremlin

10 Great Games is a compilation of some of Gremlin's biggest hits in the last few years, plus an old Vortex game. There are two Mastergames, *Bounder* and *Highway Encounter*, four Raves, *Avenger, Krakout, Trailblazer* and *Jack the Nipper* and the other games are *Future Knight, Footballer of the Year, Monty on the Run* and *West Bank*. £9.99 is the price for the cassette and £14.95 for the disk.

Now this is what I call a great compilation. Gremlin have produced consistently superior games, most of which are on this set. Tremendous variety and bursting with gameplay.

Elite

The Elite Collection comes in two volumes of four games each, four of which are Raves. *Volume one* contains *Bomb Jack* (a Rave), *Frank Bruno's Boxing, Commando* and *Airwolf*. The other volume is all Raves: *Ghosts and Goblins, Paperboy, Bomb Jack II* and *Space Harrier*. The two volumes are packaged together and cost £14.95 on cassette and £19.95 on disk.

Volume II is certainly a good looking group. They're all good arcade conversions to bring the coin-ops to your CPC at Christmas.

US Gold

Solid Gold has five games on it. *Gauntlet* was a Mastergame, *Leaderboard* and *Winter Games* Raves and the the other games are



Ace of Aces and *Infiltrator*. £9.99 will buy you the tape and £14.95 the disk.

A reasonable collection, but it lacks the sparkle that some of the others have because the games are old or have been superseded by other games.

Power House

Eight games on two cassettes for £9.99. The games are *Corridor Conflict, Freedom Fighter, Nakamoto, Nocturne, Time Lord, Amstrad Shuffle, Barrier Reef* and *Wrath of Olympus*.

Codemasters Plus

Codemasters are to establish a new price bracket at £4.99. The new price range is because you get two tapes instead of the usual one. Side A of the first tape contains a game, the B side contains an expert version of the same game that is much more difficult than the A side.

The second cassette will contain alternative scenarios in which either version of the game can be played. This is to increase the life of the game and the first title to come out will be *Jet Bike Simulator*. The packaging will also contain stickers and a mini poster. Early december should see this in the shops.

HiSoft Knife and Lisp

Knife Plus is a disk recovery program that allows you to undelete files, edit sectors and more on the CPC 6128. It will cost £19.95 on CP/M plus disk and is available now.

HiSoft are also soon to release the computer language Lisp. The program is a full-feature integer interpreter with an interactive screen editor. Many example programs are included on the disk and a large ring bound manual contains a tutorial section and breakdown of the language. HiSoft *Lisp* costs £49.95 and is available now.

Return of Ultimate

Knightlore, *Knightshade* and *Sabre Wulf* are all to be released on the Ricochet label at £1.99 each and *Kung Fu Master* will be released on the Americana label for £2.99.

Energy is the latest game on the MAD label. It's a shoot-em-up with strategy elements and features hundreds of different aliens to blast. It costs £2.99. All of the above games should be out now.

Upgrade Update

In issue we told you about Ram Electronics take over of DKTronics. Ram are to continue producing the full range of DKTronics hardware add-ons including the 64K ram pack at £39.95, 256K ram pack at £75 and the 256K silicon disk system at £99.95.

For more details contact Ram Electronics (Fleet) Ltd on 0252 850031/850085 or write to them at Unit 16, Redfields Industrial Park, Redfield Lane, Church Crookham, Aldershot, Hampshire GU13 0RE.

Six

Computerize cricket scores with the *Cricket Program*. Available from NC Barton at £18.95 on disk. It provides the user with a comprehensive analysis of a seasons play. After each match the results must be keyed into the computer. This then allows batting, bowling and run averages to be viewed or printed. More information from 14 Heol Waun-y-nant, Whitchurch, Cardiff, CF4 1JZ.

Winter Sports

Winter Olympiad 88 is the new game from Tynesoft and features a number of winter sporting events. David Vine, the TV sports



commentator, has written an introduction to the Winter Olympics which is included in the packaging. The game will cost £7.95 on tape.

Software with bite

Boo Boo has been beamapped by a bloodthirsty hunter and imprisonned somewhere in Jellystone Park. Yogi is out to rescue his little friend and is hampered by campers, hunters, the wildlife and of course the ranger. *Yogi Bear* is by Piranha and should be out now and will cost £9.95 on tape and £14.95 on disk.

Berk is back and this time he must go down through the trapdoor to meet the strange creatures that live there. Boni has been captured and dragged into the gloomy depths. *Through the Trapdoor* is out now at £9.95 on tape and £14.95 on disk.



Of Tanks and Sorcerers

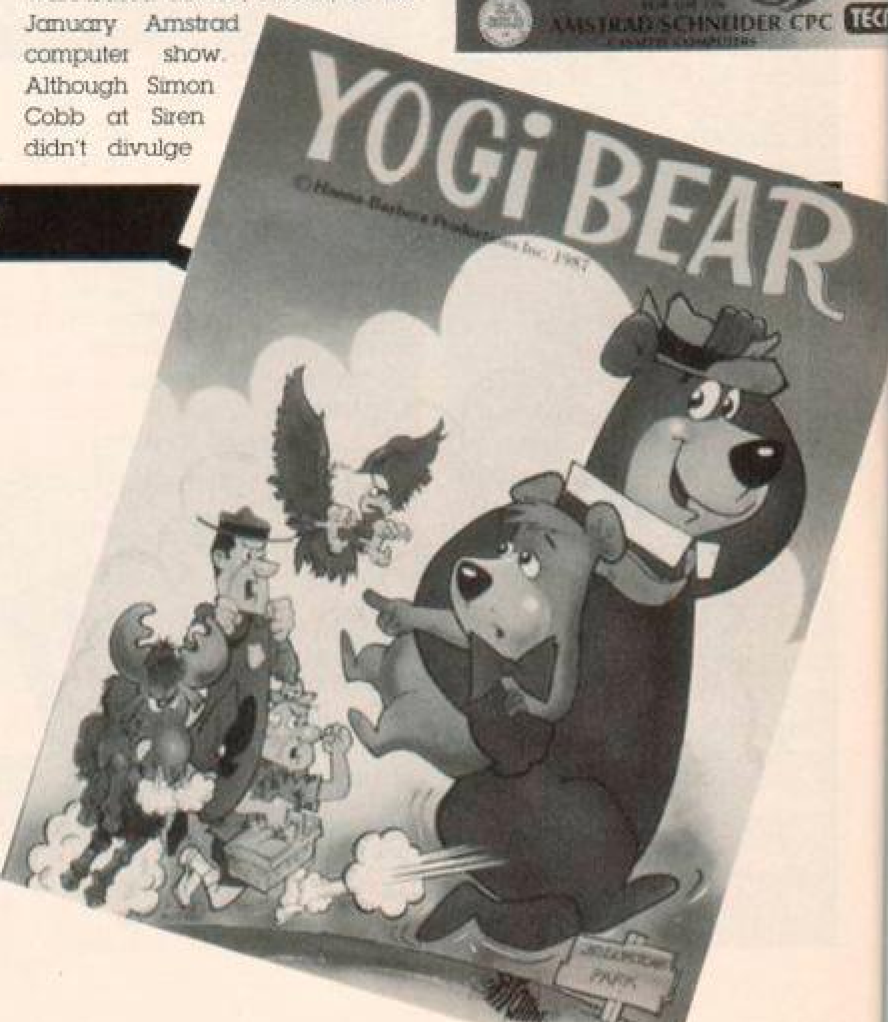
First there was a game called *Battlefield Germany*. Now there is *Sorcerer Lord*. They are both by Cybercom Enterprises for PSS, but this time we are taken into the land of fantasy and not near reality.

The battle takes place in the fantasy world of Galanor which is being invaded by the evil ruler of Northern Shadowlands. It arrived too late to be reviewed in the issue, so watch out for it next month. *Sorcerer Lord* costs £12.95 on tape and £17.95 on disk.

Hard January

Siren Software is to release a hardware-based device, Hackit, at the January Amstrad computer show. Although Simon Cobb at Siren didn't divulge further information he did hint on a price of under £30. From the name you can make your own deductions about its uses.

As a special Christmas offer Siren are giving away *Cherry Paint* – the Mode 2 screen designer – with any two of their products. Siren are on 061 228 1831.



Lets Fight!

Rygar is the hero of this scrolling shoot-em-up. He lives 4.5 billion years after the creation of earth. Many foes stand before him in his quest to dominate. *Rygar* is by US Gold and should be out now. £9.99 will buy the cassette and £14.99 the disk.




RAMPAGE™
'...the game that's
going to become the biggest cult game
of the YEAR.
It's going to be a monster...' Arcade Action
COMPUTER AND VIDEO GAMES


RAMPAGE
JOIN THE ACTION
RAMPAGE
ACTIVISION
Mail Order: Activision (UK) Ltd, Units 3 & 4 Lloyds Close, Finedon Road Industrial Estate, Wellingborough, Northampton NN8 4SR Tel: (0933) 76768.
TM & © 1986 Bally Midway MFG Co. All rights reserved. Activision Inc. Authorised User.
Commodore 64/128 Cassette (£9.99) and Disk (£12.99) ZX Spectrum 48k/128k/+ (£9.99). Amstrad CPC Cassette (£9.99) and Disk (£14.99). Atari ST (£14.99). Atari XE/XL cassette (£9.99) and Disk (£14.99).
Bally MIDWAY MFG. CO.
Officially licenced from one of the most original and popular arcade games ever created, Rampage is the game where the nice guys don't get a look in. Grab your way through Chicago, punch up New York and jump on San Francisco. This is your chance to become one of three indescribably monsterous characters on a rampage through 85 cities in an enduring 768 different days of destruction.

DTP on CPC

Rival products are about to meet on the desktop battleground, Richard Monteiro is our war correspondent.

Stop Press

Advanced Memory Systems, £49.99 disk only, 128k required

Even after nine months out of the limelight, *Stop Press* (formerly *Pagemaker*) has, up until now, been the only serious desktop publishing package for the CPC. It's been the closest Amstrad users could get to emulating the hi-tech Fleet Street setups. Although speed and several high-brow features are lacking, with a little work and patience, the results can be staggering.

Whatever happened to...?

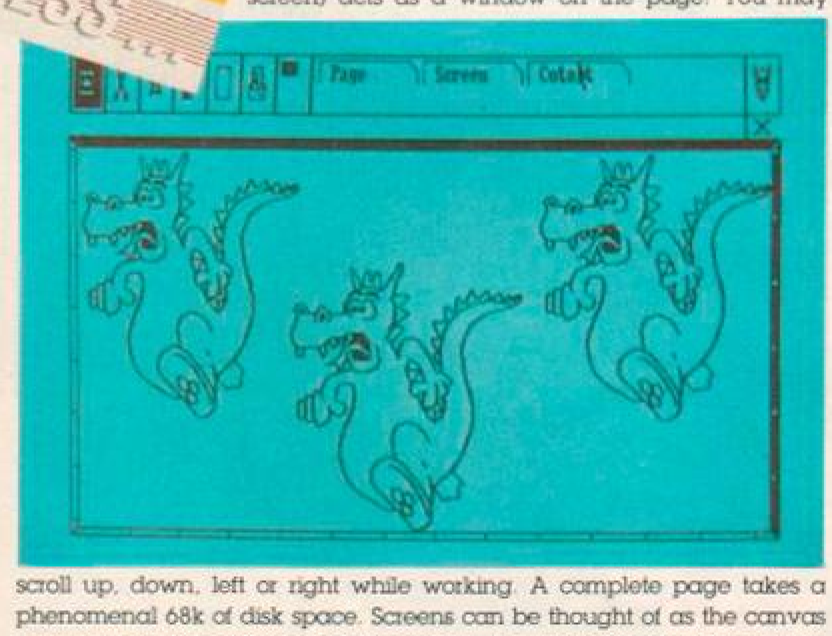
Pagemaker was released back in February (reviewed issue 17). Due to a plethora of bugs – and several options not working – the product was removed from the market. It was while *Pagemaker* was undergoing surgery that a problem arose with the name: Aldus, maker of the Macintosh and PC *Pagemaker*, had released their product first and therefore claimed the trademark. Consequently AMS rebadged the package *Stop Press*.



Stop Press allows you to create and print A4-sized documents. Text and graphics can be mixed anywhere on a large, scrolling screen by using either mouse, keyboard or joystick – basically it's a typesetting and artwork system.

The main design-screen displays seven icons. Each selects an alternate operation or mode. Moving from left to right:

From the Filing icon you may load and save pages, screens and cutouts. The drawing area or page is roughly A4 in size. The canvas area (any part that can be viewed on the computer screen) acts as a window on the page. You may scroll up, down, left or right while working. A complete page takes a phenomenal 68k of disk space. Screens can be thought of as the canvas area, and cutouts are areas of the canvas. A cutout may vary from a few pixels to the whole canvas area.



Surgeon's delight

The next icon, Paste, allows you to manipulate images on the canvas. The simplest operation being copy; where a design from one part of the screen is duplicated elsewhere. It is possible to copy images with ghosting. This simply lets you select which colour (black or white) is placed on the canvas. Moving is similar to copying, however, instead of duplicating an image it lifts it from one area and places it in another.

Areas may be flipped in either horizontal or vertical planes. Other effects – for example, rotating through 90 arcs, variable stretching and off-setting or scrolling small areas of the screen – are also possible.

The Text mode is the most important section. Text can be placed anywhere in a variety of fonts, sizes and formats to give sparkle to otherwise standard designs and screens. A window must be defined before entering characters. All text gets formatted inside this window.

Font facts

If you've looked at a variety of magazines, books and newspapers you will notice that text can be arranged in may patterns or formats. *Stop Press* allows you to emulate many of these styles:

Extra Extra

Advanced Memory Systems, £24.99 disk only

If the fonts and cutouts supplied with *Stop Press* don't meet your requirements and you haven't the time or patience to design new ones, then *Extra Extra* may come as a Godsend. It consists of over 300k of clip-art, that's over 120 different pictures, and 25 extra fonts.

The Clip-art ranges from Access and Visa signs to bears and bunnies. Of the many fonts, the Chelsea, System, Sausage and Modern fonts are particularly good.

- Centre – will place text in the middle of the left and right margins.
- Justify – makes sure that all lines in a column are of the same length. This is achieved by adding extra spaces between words.
- Word Wrap – ensures that words don't split at the right margin. If a word won't fit on a particular line then it's moved to the next line.
- Literal – text appears exactly as you type it.

Insects at bay

Unfortunately *Stop Press* isn't completely bug free. There are a few minor bugs which, although not disastrous (unlike many in the original), are annoying.

The major bug – which is more of a compatibility problem – concerns 464 users: it is possible to load one cutout, but try another and the screen goes haywire. Other problems, which are irritating rather than fatal, include being able to "fill" the top ruler and the area above that.

Possibly the most powerful feature to be found in Text mode is autoflow. This allows text to fill an area of virtually any shape. Circles, triangles – anything, in fact. Incredible layouts can be made.

Before text hits the screen you may "effect" it. This merely alters the manner in which the font is output to the screen: normal, bold, italic. There are 17 fonts supplied on the *Stop Press* disk. Plenty, but you can easily define new sets and existing ones may be enlarged or reduced in any direction.

Type-setter print quality

Many of the components within the Graphics mode are standard art-package functions, but nonetheless are very welcome. Areas may be filled with patterns – and there's a healthy selection of them. Different spray-types exist: brush, mist, ghosting. Even a shape generator is present.

Having the finished page on screen is all very well, but the real purpose behind *Stop Press* is to be able to print camera-ready A4 pages. Although printing a page can take over two hours, especially in NTQ mode (near-typesetter quality), the results are spectacular. Of course, if all you want is a small window then just that can be dumped.

The goodies icon provides a host of useful features: from entering system calls (bar commands) to scanning images. To scan or digitize matter you must have a video digitizer. Images can be scanned straight on to the page and altered later. The *Vidi Digitiser* can be purchased from Rombo in Livingston (0506 39046) or direct from AMS. Price is £89.95.

With *Stop Press* you have the potential to create startlingly good newsletters, press releases, even small magazines. It is the package to use if you wish to enter the exciting world of DTP on the CPC.

Preview package

The copy of *Micro Design* that landed on our desk was short of a few features. Only the standard Amstrad font was available, the manual was incomplete and much of the file handling was left out. And it was only compatible with the 6128. According to Simon Cobb at Siren everything will be rectified by late December, early January. More options are to be added and both 464/664 users with extra 64k memory will be able to use it. By then a price should be fixed which, said Simon, "will be under half the price of existing Amstrad DTP packages.

GOOD NEWS	BAD NEWS
■ The most comprehensive in its field. ■ Very high quality printouts are possible. ■ Superb text-handling features. ■ With a little extra hardware pictures can be scanned in situ.	■ Minor bugs still present. ■ Has taken a long time to arrive.

Micro Design

Siren Software, Price undecided, 128k required

Apart from *Stop Press*, this surprise offering from Siren is your only alternative to desktop publishing – at present. And like *Stop Press* it is ideal for magazine and press release production.

Micro Design is split into five parts: Layout, Design, Printing, Filing and Editing. Each is selected from the Main Menu window.

From Layout you can decide on the page – or paper – format. Horizontal A4, vertical A4 or strip (for very high resolution), for example. Included are a selection of other commands which act on the whole page or parts of it. Parts of the page may be moved, copied or erased. When a block is moved or copied you can choose how it will affect the background.

Page design

The Design mode is where you can let your creativity flow. Icons – small pictures or designs – may be plastered anywhere on the page. There's a good selection ranging from happy faces to circuit components.

Fleet Street Editor

Mirrorsoft, £49.95 disk only, 128k required

Unfortunately Mirrorsoft's contribution to DTP couldn't make the issue. However, Pat Bitton at Mirrorsoft hopes *Fleet Street Editor* will be ready for early January.

Of course, if you don't approve of the 40-odd icons, you can always create your own. When pasted to the page they may be rotated or flipped in any direction.

Standard point, line, rectangle and circle drawing options are available. Others include triangle, diamond and oval. The choice of colours is either black, white or exclusive or (black becomes white and white becomes black when drawn on). Lines may be either dotted (various densities) or solid.

Shapes, while drawn, may be filled in black, white or a pattern determined by a selected icon.

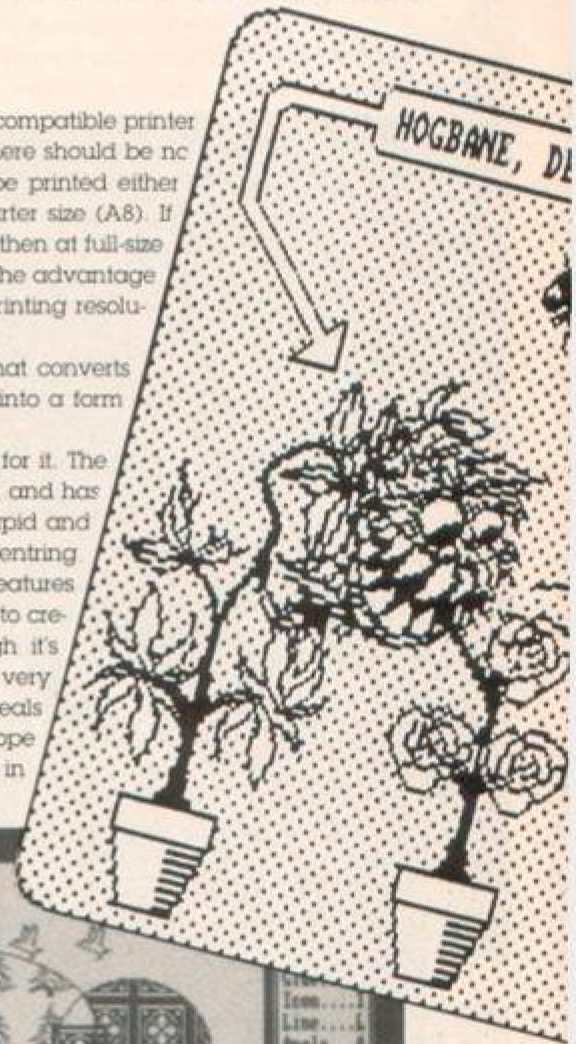
Text can be incorporated in four sizes anywhere on the page. The usual Amstrad font is used, but may be changed by loading any of the other 15 supplied on disk. Characters may be written in any polar direction.

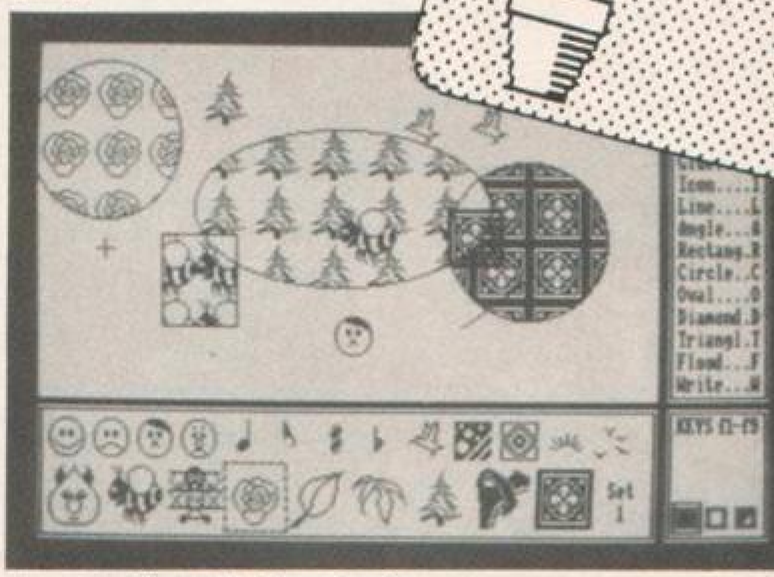
Control codes

If you have an IBM or Epson compatible printer that has a graphics facility then there should be no problem in printing. Pages may be printed either full size (A4), half size (A6) or quarter size (A8). If you chose to draw on strip format, then at full-size this covers a third of an A4 page. The advantage of strip-drawing is the very high printing resolution.

A short routine is provided that converts screens from other art packages into a form that *Micro Design* recognises.

Micro Design has a lot going for it. The control method used is soon learnt, and has a few handy key-combinations: rapid and slow cursor speed, screen-cursor centring and alternative cursor shapes. Features are plentiful and powerful enough to create stunning layouts. Even though it's still in pre-production form, it left a very favourable taste; it definitely steals some of *Stop Press'* thunder. Let's hope the final version is not too long in coming.





• Icon doodling with Micro Design



GOOD NEWS	BAD NEWS
■ For a low-cost DTP package it has many high-brow features. ■ Wonderful editing options. ■ Printouts are high quality. ■ Controls are slick and easy.	■ Incomplete package reviewed.

Contacts

Advanced Memory Systems ☎ 0925 413501
66/170 Wilderspool Causeway, Warrington, WA4 6QA

Siren Software ☎ 061 228 1831
2-4 Oxford Rd, Manchester, M1 5QE

Mirrorsoft ☎ 01 377 4645
Athene House, 66-73 Shoe Lane, London, EC4P 4AB

Helpline

Where eager Amstrad experts volunteer to aid fellow readers having problems

If you too feel helpful, just send us your name, address, phone number (say so if you don't want it to be printed) and subject on which you want to help. Please write on a postcard or the back of a stuck-down envelope to simplify administration here in the office. Send to: **Helpline, Amstrad Action, 4 Queen Street, Bath, BA1 1EJ.** If you are asking for help, make direct contact with the appropriate Helpliner - don't pester your usually-patient (but pressed) editor. By post, you must include a self-addressed, stamped envelope for the reply - otherwise you won't get one. And if you telephone, stick to socially acceptable hours!

Reminders: the lists of games you're sending in are getting too long. I don't want to stop them, but in future you'll be restricted to a maximum four lines each (not including the name and address). I've shortened several of the lists, so if you're not happy with them send in an amended list. Anyone invloved in piracy is not welcome on this page and if problems arise they will be removed. Keep it legal, it's in everyones interest.

Gauntlet Aliens Hacker 1 Green Beret Short Circuit Lightforce Knight-tyme Zub Xoel Bomb Jack 1 Apprentice Thrust Saboteur 3D Boxing (Amsoft) Kane Oh Mummy Good at programs that give lists of things eg telephone numbers games stocks 464
Abdul ("Billy") Qureshi, 16 Truggers, Handcross, Haywards Heath, W Sussex, RH17 6DQ = (0444) 40 0548

Soul of a Robot Zub Rebelstar Kobyashi Naru Spellbound Knight Tyme Get Dexter The Last V8 Thing on a Spring Batman Starquake Cauldron Cauldron 2 Dummy Run Bounder Gunfright Chronos Antiriad Curse of Sherwood Amaurote Feud Robin Hood Dizzy Sorcery Head over Heals Thrust and Spindizzy
Graeme and David MacDonald, 13 Shillinghill, Alness, Ross-shire, Scotland, IV17 0SY

Amaurote Kane Hyperbowl Turbo Esprit Speed King Starstrike II Yie-ar Kung Fu Thrust 1 Tomahawk Druid Batman Knight Tyme Thanatos Harvey Headbanger Paperboy Gauntlet Arkanoid Lightforce Trailblazer F1 simulator Way of the Exploding Fist
Jason Burns, 212 Victoria Rd, Higher St Budeaux, Plymouth, PL5 2DH

Basic machine-code hardware programming roms Peripherals available for use printers video digitisers rom blowers Multifaces
Mark Spencer, SIG Enterprises, room 2, 101 Oxspring Bank, Sheffield, S5 8NR = (0742) 31 4053

Protext Prospell Utopia roms Basic DMP 2000 printer can supply screendumps of games or programs
Andrew Perry, 5 Uplowman Road, Tiverton, Devon, EX16 4LU = (0884) 25 3414

Mini Office 2 Melbourne Draw Music System tape-to-tape DMP 2000 Grand Prix Simulator Chronos Starglider Yie-ar Kung Fu Colony Destructo Radzone Kane Dynamite Dan Rocky Horror Show - and many other games software companies addresses and general help on the 464
Helen Saunders, 14 Elm Ave, Beeston, Nottingham, NG90 1BU

any problems or tips (founded German Computer Service two years ago) including CPM transferring programs from other computers hacking making programs compatible over all CPCs pokes Basic errors and problems Hacker 1 Cauldron 1 and 2 Theatre Europe Bruce Lee Thanatos
Kai Herthneck, Ostracherstr. 4, 7000 Stuttgart 80, W Germany = (+711) 72 3357

Feud Jack the Nipper Knight Tyme Message from Andromeda Revolution Street Hawk Saboteur Starstrike II Thrust II 180
Paul Selvidge, 15 Whitcombe Close, Lordswood, Chatham, Kent, ME5 8RL = (0634) 62978 except Sundays

Batman Druid (use map locations from AA maps) Head over Heels Batman Druid Rally II Green Beret DT's Decathlon Lightforce Yie-ar Kung Fu Who Dares Wins II Bruce Lee Ghosts n Goblins Chuckie Egg Chronos Moon Cresta Mindshadow
Darren Roole, Cathryn Wheel House, 43 High Street, Manea, Cambs, PE15 0JD

Get Dexter Robin Hood Trailblazer Fighting Warrior Druid Knight Lore Thrust Avenger Bruce Lee Match Point Starglider Green Beret Sorcery Revolution Thing on a Spring Starstrike II Xeno Pingpong The Apprentice Finders Keepers Pipeline II Shockway Rider Locomotion Zub Knight Tyme Radzone Everyone's a Wally
John Lawless jnr, 75 Leix Rd, Cabra, Dublin 7

Amaurote Feud Sorcery Knight Tyme Spellbound Gauntlet Space Harrier Ikari Warriors Bombjack 1 all Elite games Batman Frankie Gilian's Gold most Ocean games Gunfright Alien 8 Thrust 1 Flyspy Molecule Man Caves of Doom Spindizzy Adventures Hobbit Jewels of Babylon Worm in Paradise Has typed in all the type-ins
Frankie, 103 Strathaven Road, Lesmahagow, Lanarkshire, ML11 0DN

Soccer Boss Starquake Thrust Rebelstar Ikari Warrior Hyperbowl Football Manager Feud Harrier Attack Kane Radzone Ghouls Bruce Lee Manic Miner Star Commando Bump Set Spike World Series Baseball Raid Don't Panic Grand Prix Simulator Hunter Killer Fighter Pilot
Craig Thomson = Motherwell, Scotland (0698) 51177

Machine code programmin Basic programming parallaxing udgs (text) multi-coloured text (mode 1 and 0) send SAE and disk for demo progs and programming help almost all games
Mathew Middlecott, 168 Fernhill, Harlow, Essex, CM18 7LF. tel (0279) 33269

Solving bugs in Basic and most machine code programs Enclose listing + description of program + description of problem) If possible enclose cassette with program on 464 only If machine code enclose assembler listing
Paul Jones, 78 Fitzwilliam Street, Swinton, Rotherham, S.Yorkshire, S64 8RW

Converting programs for the Vortex disk drive Simple machine code Hacking CP M programs & utilites A whole bunch of public domain programs
Mark de Bont, de Foes 15, 5581 AP, Waalre, Holland, tel (04904) 13963

Message from Andromeda Terra Cognita Thrust Mr Freeze Spellbound
Darren Jackson, 85 Fitzherbert St, Warrington, Cheshire, WA2 7PN
Radzone Ghosts and Goblins Knight Tyme Dragons Lair Green Beret Gauntlet Feud

Starquake (codes) Bounder Boggit
David Brooke, 8 Birkby Grove, Bilton Grange, Hull, HU9 4PZ

Knight Tyme Spellbound machine code Basic Word Perfect Melbourne Draw GAC pokes maps hacking DMP 2000 problems games development using GAC word-processing graphics (screen dumps) all CPC games Can also print program listings for a 40p postal order How to do pokes and problems using modems (I have a Voyager 7)
Guy Sicka, 78 Chesterfield Road, High Barnet, Herts, EN5 2RF. tel (01) 441 5612

Basic programming some machine code
Paul Bower, Elm Gable, Hermitage, Newbury, Berks. RG16 9SA. tel (0635) 20089

Tasword 6128 Tas-spell 464 & 6128 Tasprint Tascopy Basic programming Masterfile III Locksmith+ Masterdisc Epson LX printers CPM and help on then game Elite
Oystein Kjaereng, Torvymrv.42, 3170 Sem, Norway

Feud BMX Simulator Equinox Who Dares Winds 2 Frank Bruno's Boxing Shogun Green Beret
Inigo Dunkley, 62 Rainbow Drive, Melling, Liverpool, L31 1BZ, Merseyside. tel (051) 547 2714

Basic machine code Laser Genius tape loading disk loading firmware graphics sound hints pokes mapping Word Perfect Sorcery+ Transmat Oddjob Warlord Kung Fu Master Bruce Lee Bounder Gunfright Pip will print listings for 20p
Steven Lawson, Plot 77, Meir Park, Staffordshire, ST1 6HQ.

Basic programming machine code programming firmware calls Amsdos calls + accessing them adding second drives (3in. + 5.25in) tape loading problems multiface two printer problems
Kevin Bryant, Jessamine Cottage, Chapel Lane, Ashford Hill, Newbury, Berks, RG15 8BE tel Tadley 71792

GAC adventure writing and problems Also conversions to other formats undertaken for published GAC authors by fellow established author
C.Sharp, 4 Osprey Gdns, Sheffield, S2 5GE, S.Yorks

Bombjack Green Beret Doomdarks Revenge Lords of Midnight Thrust Barbarian Kung Fu Master Elite Hunchback Feud Everyone's a Wally Who Dares Wins 2 Grand Prix Simulator Kane Hyperbowl Ikari Warriors Fist Yie Ar Kung Fu Bruce Lee Jack the Nipper Fourth Protocol (part one only) Knight Tyme Ghost n Goblins
Paul Crich, 33 Hills Road, Strathaven, Lanarkshire, ML10 6LQ. tel (0357) 29606

Gauntlet Knight Tyme Green Beret Spell Bound Bombjack Stormbringer Bombjack II Kane Amaurote Zub Grand Prix Simulator Starquake Harrier Attack Bruce Lee Pipeline 2 Harvey Headbanger Back to Reality Equinox Knight Lore Bounder Ping Pong Space Harrier Exolon Mag Max Ball Crazy Desert Fox Boulder Dash
David Howlett, 53 St Marys Avenue, Alverstoke, Gosport, Hants, PO12 2HU

An extremely large number of games which is too long to list here so telephone him to find out
Craig Thomson. tel (0698) 51177

Raid 180 Star Raiders II Beach Head II Death Wake Sir Lancelot Footballer of the Year Nonterraqueous
Michael Dickinson, 281 Tyldesley Road, Atherton, M29 9AL

Hints tips pokes on Pulsator Run for Gold Amaurote Short Circuit Paperboy Ikari Warriors Arkanoid Rebelstar Thrust Exolon Renegade Speed King Get Dexter Green Beret Raid
Iain McKinnon, 37 Loch Laidon Street, Sandyhills Estate, Glasgow, G32 9HR

Batman Ikari Warriors Jack the Nipper Rambo
Si Carter, 6 Laurel Grove, Hoole, Chester, CH2 3HU

writing an using CPM software 8080 and Z80 assembly language any version of Basic protection of data and programs research development and programming of games and languages Basic and MC graphics Much more available write for details
Cormac McGaughey, 1 Glenariff Rd, Cushendall, Co Antrim, BT44 0QY

I can help with maps tips and pokes for Future Knight Dan Dare Rambo Ikari Warriors Starglider Short Circuit Academy Shadow Skimmer Thrust II and more
Dominic Keen, Church View, School Lane, Upton Snodsbury, Worcester WR7 4NH = 090 560 835

Alien 8 Arkanoid Ballblazer Beach-Head Confuzion Dambusters Ebert Finders Keepers F1 Simulator Hacker Jet Set Willy Knight Tyme Masterchess Milk Race Nightshade Paradoia Radzone Sabre Wulf Spaced Out Speed King Spindizzy Station Think Way of the Fist Protext DMP 2000 Basic
Rufus Cable, Woodpark, Shrule, Co Mayo, Eire (NB English stamps no use on SAEs).

pokes tips maps debugging Basic programming will type in listings
Mark Hillier, 121 Eliot Bank, Forest Hill, London, SE23 8XD = 01-291 6390

Laser Basic
Trevor Prince, 46 Hillport Ave, Porthill, Newcastle, Staffs, ST5 8JZ

Protext

Amor, £19.95 cass, £26.95 disk, £39.95 rom – reviewed issue 3

Pocket Protext (CPM plus only)

Amor, £39.95 disk – reviewed issue 24

Protext (CPM plus version incorporating Prospell & Promerge)

Amor, £59.95 disk

For sheer ease of use and number of functions this comes out top in the word-processor stakes. It's what we use to create AA. The friendly manner in which you can jump out of Protext, perform some function in Basic and pop back to Protext (without even losing the document) is a real treat.

A spelling checker, Prospell (£24.95 disk, £29.95 CPM disk, £34.95 rom), and mail merge facility – Promerge (£24.95 disk, £34.95 rom) – can be added to word-processor giving it tremendous power.

The Art Studio

Rainbird, £19.95 disk (6128 only) – reviewed issue 14

The Advanced Art Studio

Rainbird, £24.95 disk (6128 or 464/664 + extra 64k) – reviewed issue 21

A sophisticated art and design package using trendy pull-down menus and icons. All the standard functions are there with a smattering of more advanced features: stretch, squash, text in various sizes and fonts... the list is endless.

The original version only allowed you to create Mode 1 and Mode 2 drawings – a whole load of new features have been thrown in to the later package plus any-mode drawing.

The Music System

Rainbird, £15.95 cass, £19.95 disk – reviewed issue 6

The Advanced Music System

Rainbird, £29.95 disk – reviewed issue 13

For the musically inclined, wishing to squeeze the best out of the CPC sound chip, this package offers the most. Options are selected using Rainbird's usual neat windows and icons method. Compositions may be created, saved and played – in fact, everything required to create music on the Amstrad is present.

The later version provides two new modules: printout – which lets you dump staves and other musical notation to the printer – and file-linking. This allows you to join several files together and play or print them.

Database Manager (AtLast)

Advance, £29.95 disk (CPM plus only) – reviewed issue 19

A relatively cheap database that carries a hard punch. Data capacity is limited only to the disk size: 32,000 records per file and over 2,000 characters per record.

It has a simple built-in word-processor allowing explanatory text to be positioned anywhere, data from several files can be operated on, numerous form-layouts for printing are possible and help windows are always at hand. Easy to get to grips with and very powerful.

Competition Pro

Kempston, £16.49

Speedking

Konix, £12.99 – reviewed issue 18

Two joysticks for you to waggle with: the Competition Pro comes either with a see-through or a solid base - responsive with a positive feel; the handheld Speedking is a good all-rounder, but performs particularly well when precision movement is required.

Thingi

CPM, £6.99

How else do you hold up your copy of AA? A piece of velcro holds the Thingi to the computer; a clip holds copy to Thingi. Left- and right-hand models available.

Maxam

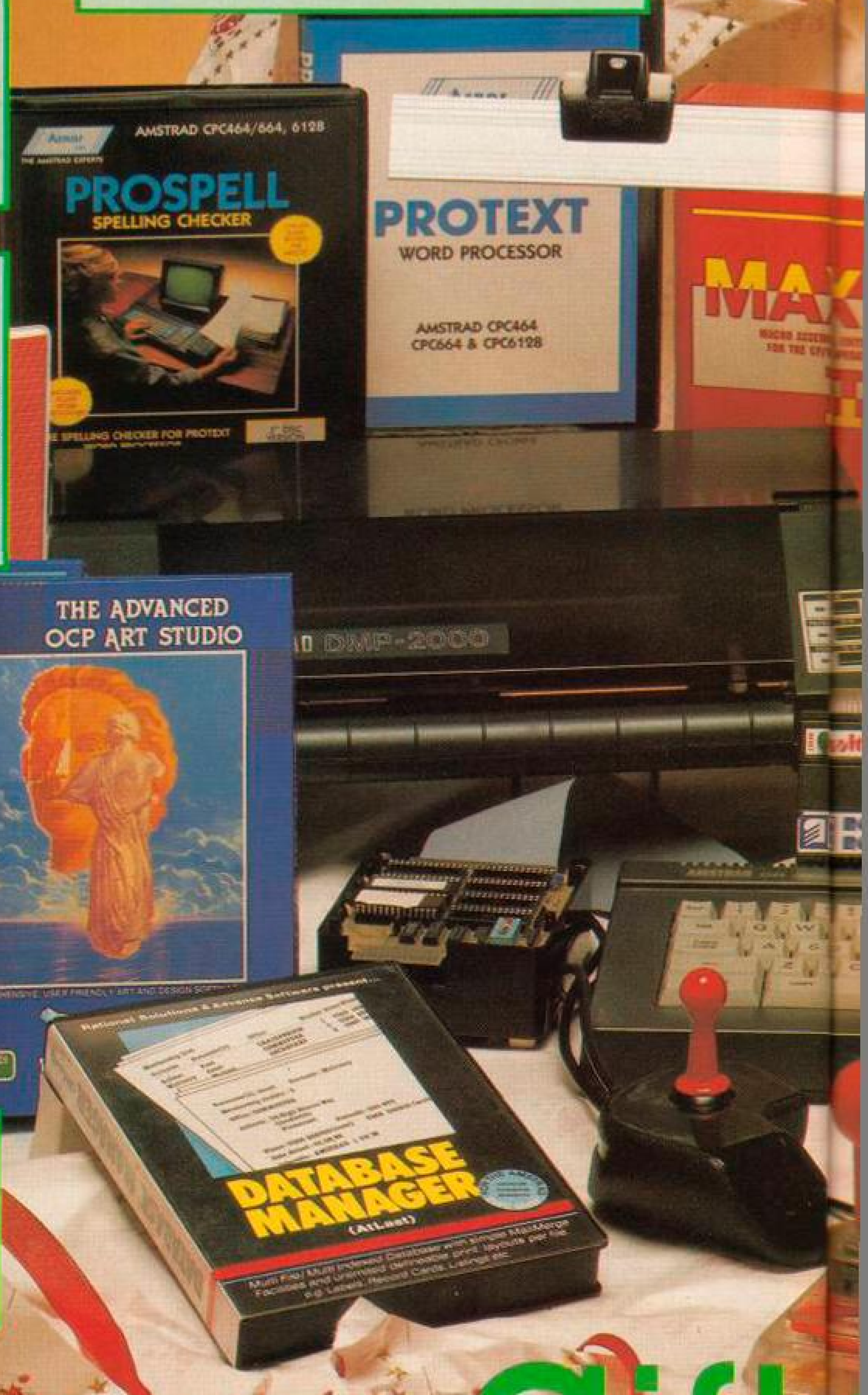
Amor, £19.95 cass, £26.95 disk, £39.95 rom

Maxam II

Amor, £49.95 disk (CPM plus only) – reviewed issue 21

Undoubtedly the most popular assembler, disassembler and monitor. It's speed, simplicity and power is second to none. Editing, or entering the Z80 opcodes, is a joy: the text editor is as good as many commercial word-processors.

The successor, Maxam II, operates under CPM plus – is faster, and has better debugging facilities, supports macros and includes a link option allowing huge assembly files.



Christmas Gift

DMP 2000

Amstrad, £159 – reviewed issue 3

There many printers on the market, but Amstrad's own fits the bill adequately. Reasonably priced with industry-standard Epson control codes, sleek design and over a hundred combinations of typeface, it is the clear choice.

Rombo

Rombo Productions, £34.95 – reviewed issue 10

The neatest rom board available. Can house eight roms – expandable to 16 (664/6128 only) by piggy-backing another board. The roms can take up numbers 0 to 7 or 8 to 16 depending on the position of a link. A set of dip-switches allows you to shut off particular roms. This is ideal as certain commercial software doesn't take too kindly to plugged-in roms.

Amstrad Starting Basic

Glentop, £4.95

Amstrad Sound, Graphics & Data Handling

Glentop, £5.95

These two books are ideal for beginners to Amstrad Basic. Packed with diagrams and examples, between them, they are guaranteed to get you on the road to better programming.

Scratchpad Plus

Caxton, £69.99 disk (CPM plus only) – reviewed issue 8

This is the work-horse amongst spreadsheets. With a maximum 5,000 cells per sheet it should cope admirably with your home and small business needs.

The physical dimensions of the sheet can be altered at will. So, for example, you could have 50 columns and 100 rows or vice versa, or indeed in any combination of rows and columns (up to the 5,000 cell mark) you deem fit.

Mathematical functions are impressive: standard functions may be used along with trigonometric and scientific operations.

Multiface II

Romantic Robot, £42

The tape-to-disk transfer utility that can give an excellent success rate. Simply load the software, press a button and hey-presto it's on disk. But it doesn't stop there: the whole of memory can be inspected - including registers, CRTC data and more; there's even a reset button and a facility to save the screen only. Prevents piracy since the unit has to be plugged in for the transferred game to work.



Guide

Can't think what to buy for the CPC owner in your house? Or maybe you want to drop some heavy hints to someone about what you would like for Christmas? Here's the gift guide with all the answers.

It lists the serious software, hardware and other miscellaneous add-ons we recommend above others in the same category. From joysticks to spreadsheets, we cover the lot. Just put a large red ring around whatever you're after and leave it lying under the nose of whoever's playing Santa Claus this year. Alternatively, ring the entire page and get a pleasant surprise.

Master Blaster

Siren Software, £29.99 – reviewed issue 23

Boost your CPC's sound with Siren's stereo amplifier and two three-way speakers. Once you've heard *Defender* through the Blaster with the volume turned up full, you'll wonder how you ever did without it.

Anti-Glare Filter

Alfa Electronics, £10 green screen, £11.50 colour

If you find the sun streaks through a nearby window and makes it impossible to use your CPC why not try a filter? You'll find the screen comes back to life and the image is that bit sharper. Held to your CPC with a couple of velcro strips.

Joystick Splitter

RSD Connections, £6.95 – reviewed issue 20

Essential for those two-player, simultaneous games – Ikari Warriors and Gauntlet, for example – in which the keyboard just isn't responsive enough.



Where to go

Alpha Electronics ☎ 01 3902588
Unit 7, Maple House, 97 Ewell Rd, Surbiton, Surrey, KT6 6AH

Amstrad Consumer Electronics ☎ 0277 228888
Brentwood House, 169 Kings Rd, Brentwood, Essex, CM14 4EP

Arnor Ltd ☎ 0733 239011
Protext House, Wainman Rd, Peterborough, PE2 0BU

Caxton Software ☎ 01 3796502
10 Bedford St, London, WC2E 9HE

CPM ☎ 051 649 8616
Business Centre, Claughton Road, Birkenhead.

Glentop Publishers ☎ 01 4414130
Standfast House, Bath Place, High St, Barnet, Herts. EN5 1ED

Kempston ☎ 0908 690018
Pandaal Marketing, 22 Linford Forum, Rockingham Drive, Linford Wood, Milton Keynes, MK14 6LY

Konix ☎ 0495 711988
Unit 13, Sirhowy Industrial Estate, Tredegar, Gwent, NP2 4QZ

Rainbird Software ☎ 01 2408837
Wellington House, Upper St Martins Lane, London, WC2H 9DL

Rational Solutions ☎ 01 874 6244
9 Rosehill Road, London SW18 2NY

Romantic Robot ☎ 01 2008870
15 Hayland Close, London, NW9 0LH

Rombo Productions ☎ 0506 39046
107 Raeburn Rigg, Livingston, EH54 8PH

RSD Connections ☎ 0920 66284
PO Box 1, Ware, Herts

Siren Software ☎ 061 2281831
2-4 Oxford rd, Manchester, M1 5QE

Firmware Guide

Amsoft, £19.95

Known to many as the Bible, and Soft 698 to Amstrad, this black-bound manual is the definitive guide to the Amstrad CPC. From memory to firmware it has the lot; the places to CALL, the roms to PEEK and the ports to OUT can all be looked up in the book no programmer should be without.

Coming Soon

There are a lot of new products available at this time of the year – too many to fit in these pages unfortunately. We shall look at these in forthcoming months, but for now here's a brief mention of what they do and where to get them

5.25 drive

KDS (☎ 04853 2076), £130 approx
Double sided, double density 5.25 drive which works under Amsdos or CPM.

10 Meg hard drive

KDS (☎ 04853 2076), £200 approx
Budget hard drive boasting 10 megabytes of storage capacity.

CZ Midi Editor

DHCP Electronics (☎ 0440 61207), £22.50 tape, £29.95 disk
Midi software for the more popular Casio synthesizers.

Eprom Programmer

Siren Software (☎ 061 2281831), £49.99
Read and write either 8k or 16k eproms with this hardware device.

Font Master

Ramasoft (☎ 0763 43715), £8.50 tape, £11.50 disk
A character set generator that allows you to save the definitions as a Basic program.

Font Pack

Seven Stars (☎ 06284 3445), £9.95 disk
Supplies the existing Qualitas system with extra decorative fonts.

Knife Plus

HiSoft (☎ 0525 718181), £19.95 disk, CPM plus only
Enhanced and extended package of the Knife disk recovery utility.

Lisp

HiSoft (☎ 0525 718181), £49.95 disk, CPM plus only
A full-featured integer Lisp interpreter based on common Lisp.

Micro-Music Creator

First Byte (☎ 0935 851265), £9.95 tape, £14.95 disk, £24.95 rom
Allows you to include musical compositions and digitized sounds within your own programs.

Speedtrans Plus

Goldmark Systems (☎ 07072 71529), £12.99 disk
The latest Speedlock tape to disk transfer utility.

The Address System

First Byte (☎ 0935 851265), £14.95 disk
Mailing list package capable of storing and printing 3000 plus entries.

The Three Bears

School Software (☎ 010 353 61 49684), £9.95 tape, £14.95 disk
A pseudo-educational adventure game for children between five and ten.



TYPE-INS

More marvellous utility type-ins to make your micro move

Loan amortization table

Before taking out a loan, why not check how much you'll be repaying monthly or, for a greater shock, in total. **R Woodfield** from New Zealand is the man to thank.

The program asks for the size of the loan, rate of interest per annum, number of payments and duration of loan in years. The results – which include periodic payment, total payment and a table of periodic interest and real payment – may be sent to either screen or printer.

```
1 ' Loan amortization table
2 ' by RT Woodfield
3 ' Amstrad Action  Christmas 87
1Ø '
2Ø ' **** Set up for screen or for printer ****
3Ø CLS:MODE 1:LOCATE 1Ø,7:PRINT"AMORTIZATION TABLE"
4Ø LOCATE 1Ø,8:PRINT STRING$(18,"-")
5Ø LOCATE 1Ø,12:PRINT"S - Screen output"
6Ø LOCATE 1Ø,14:PRINT"P - Printer output"
7Ø a$=UPPER$(INKEY$)
8Ø IF a$<>"P" AND a$<>"S" GOTO 7Ø
9Ø IF a$="S" THEN str=Ø ELSE str=8
1ØØ ' **** Check printer readiness
11Ø IF str=8 GOTO 52Ø
12Ø CLS:PRINT
13Ø INPUT"What is the amount of the loan in £";L
14Ø INPUT"What is the rate of interest % per annum";R
15Ø INPUT"What is the total number of payments";N
16Ø INPUT"What is the duration of the loan in years";Y
17Ø IF str=Ø THEN MODE 2
18Ø PRINT#str:PRINT#str,TAB(19);"LOAN AMORTIZATION TABLE"
19Ø PRINT#str,TAB(19);STRING$(23,"-")
2ØØ PRINT#str
21Ø PRINT#str,TAB(16);"Amount of Loan is £"L
22Ø PRINT#str,TAB(16);"Interest Rate p.a. is"R"%"
23Ø PRINT#str,TAB(16);"Number of payments is"N
24Ø PRINT#str,TAB(16);"Duration of Loan is"Y"years"
25Ø ' **** Calculate Periodic Payment to the nearest penny
26Ø GOSUB 39Ø
27Ø PRINT#str:PRINT#str
28Ø PRINT#str,TAB(16);"PERIODIC PAYMENT is £"P
29Ø PRINT#str,TAB(16);"TOTAL PAYMENT after"N"installments
   is £"n*p
3ØØ PRINT#str
31Ø PRINT#str,TAB(11);"PAYMENT";TAB(2Ø);"INTEREST";TAB(3Ø);
   "PRINCIPAL";TAB(41);"BALANCE"
32Ø PRINT#str,TAB(11);"NUMBER";TAB(22);"PAID";TAB(31);
   "REPAID";TAB(42);"OWING"
33Ø PRINT#str
34Ø ' **** Apportion Periodic Payments to Interest and
345 ' Principal to the nearest penny
35Ø GOSUB 43Ø
36Ø PRINT#str,TAB(11);STRING$(38,"=")
37Ø PRINT#str
38Ø END
39Ø ' ** I is the actual Installment **
4ØØ I=L*R*Y/1ØØ/N/(1-((1+R*Y/1ØØ/N)^(-N)))
41Ø P=INT(I*1ØØ+Ø.5)/1ØØ
42Ø RETURN
43Ø ' ** x is the Payment number **
44Ø ' ** a is the Interest portion of this payment **
45Ø ' ** b is the Principal portion of this payment **
46Ø ' ** L is the remaining Principal owing **
47Ø WHILE x<N
48Ø x=x+1:a=L*R*Y/1ØØ/N:b=I-a:L=L-b
49Ø PRINT#str, TAB(13);x;TAB(21);INT(a*1ØØ+Ø.5)/1ØØ;
   TAB(3Ø);INT(b*1ØØ+Ø.5)/1ØØ;TAB(41);INT(L*1ØØ+Ø.5)/1ØØ
5ØØ WEND
51Ø RETURN
52Ø PRINT:PRINT"Is the printer switched on and
   loaded    Y/N?"
53Ø b$=UPPER$(INKEY$)
54Ø IF b$<>"Y" AND b$<>"N" GOTO 53Ø
55Ø IF b$="Y" GOTO 12Ø:IF b$="N" GOTO 56Ø
56Ø PRINT:PRINT"THEN SET UP THE PRINTER NOW!":GOTO 52Ø
```

Streamer

Jan and **Martin**, the dynamic programming duo from West Germany, have written a terrific disk-space saving utility. It helps you save expensive disk space by allowing you to backup your disk programs to tape.

The main menu offers four options:

Catalogue – which searches a cassette for the contents of a disk.

Disk onto tape – allows you to place the contents of a disk onto cassette. You are prompted for a disk name (for future reference).

Tape onto disk – lets you restore a disk previously saved to cassette.

Speed – when saving to cassette you can chose the save speed: 1ØØØ, 2ØØØ or 35ØØ baud.

If you own a 664 or 6128 make sure you de-REM line 77Ø.

```
1 ' Streamer
2 ' by Jan-Mirko Maczewski and Martin Shroeder
3 ' Amstrad Action Christmas 87
1Ø IF PEEK(&9117)<>238 THEN GOSUB 8ØØ
2Ø dsk$="disk":ca$="tape":fi$="Please insert ":la$=",
   then press any key:"
3Ø MODE 2:ids=41216:table=4Ø96Ø:rt$=CHR$(13):PRINT"CPC
   STREAMER":PRINT
4Ø RESTORE 57Ø:PRINT"OPTIONS :":PRINT
5Ø FOR i=1 TO 4:READ c$,b$:PRINT" "CHR$(24);c$;CHR$(24)"
   - "b$:NEXT
6Ø PRINT:PRINT"Please choose ...
7Ø a$=UPPER$(INKEY$):IF a$="" THEN 7Ø ELSE IF a$="T" THEN 14Ø
8Ø IF a$="D" THEN 31Ø
9Ø IF a$="C" THEN 59Ø
1ØØ IF a$="S" THEN 69Ø ELSE 7Ø
11Ø PRINT:PRINT"Drive A or B ?"
12Ø a$=UPPER$(INKEY$):IF a$="" GOTO 12Ø ELSE IF a$<>"A"
   AND a$<>"B" GOTO 12Ø
13Ø drv=ASC(a$)-65:RETURN
14Ø 'Disk -> Tape
15Ø CLS:PRINT"Disk onto Tape":PRINT STRING$(14,"=")
16Ø PRINT:INPUT"Name of the disk : ",na$:GOSUB 11Ø
17Ø PRINT:PRINT CHR$(7);fi$;"disk and tape";la$:CALL &BB18
18Ø FOR i=&95ØØ TO &94FF+LEN(na$):POKE i,ASC(MID$(na$,i-
   &94FF,1)):NEXT
19Ø LOCATE 1,1Ø:PRINT"Saving disk's name ..."rt$:CALL &91Ø1
2ØØ FOR track=Ø TO 41
21Ø PRINT"Reading track"track"  IDs:";
22Ø CALL &9ØØØ,track,drv
23Ø IF PEEK(&9118)<>Ø THEN PRINT"NOT FORMATTED":GOTO 27Ø
```

```
100 IF a$="S" THEN 690 ELSE 70
110 PRINT:PRINT"Drive A or B ?"
120 a$=UPPER$(INKEY$):IF a$="" GOTO 120 ELSE IF a$<>"A"
    AND a$<>"B" GOTO 120
130 drv=ASC(a$)-65:RETURN
140 'Disk -> Tape
150 CLS:PRINT"Disk onto Tape":PRINT STRING$(14,"=")
160 PRINT:INPUT"Name of the disk : ",na$:GOSUB 110
170 PRINT:PRINT CHR$(7);fi$;"disk and tape";la$:CALL &BB18
180 FOR i=&9500 TO &94FF+LEN(na$):POKE i,ASC(MID$(na$,i-
    &94FF,1)):NEXT
190 LOCATE 1,10:PRINT"Saving disk's name ..."rt$:CALL &9101
200 FOR track=0 TO 41
210 PRINT"Reading track"track"  IDs:";
220 CALL &9000,track,drv
230 IF PEEK(&9118)<>0 THEN PRINT"NOT FORMATTED":GOTO 270
240 FOR j=ids TO ids-1+PEEK(&911B):PRINT" ";HEX$
    (PEEK(j))" ";:NEXT
250 PRINT rt$"Saving "
260 CALL &9070,track,drv,PEEK(&911B)
270 NEXT track
280 POKE &9095,201:POKE &911D,255:CALL &908A:POKE &9095,&21
290 RUN
300 'Tape -> Disk
310 CLS:PRINT"Tape onto Disk":PRINT STRING$(14,"="):PRINT
320 PRINT fi$;ca$;" and ";dsk$;la$:CALL &BB18:PRINT
330 na$="":PRINT"Searching for the "dsk$" name ..."rt$:
    CALL &9111:PRINT
340 FOR i=&9500 TO &9520:x=PEEK(i):IF x=0 THEN 360 ELSE
    na$=na$+CHR$(x)
350 NEXT
360 IF ca THEN RETURN
370 PRINT na$" found - now transferring onto disk ...":PRINT
380 FOR track=0 TO 41
390 PRINT"Reading track"track"  IDs:";
400 CALL &90A1:trk=PEEK(&911D):IF trk=255 THEN RUN
410 IF trk<>track THEN GOSUB 480
420 s=PEEK(&911C)
430 FOR i=ids TO ids+s-1:PRINT" ";HEX$(PEEK(i))" ";:NEXT
440 CALL &90BB
450 GOSUB 510:PRINT rt$"Writing
460 CALL &90DF,track,drv,s
470 NEXT:RUN
480 PRINT"NOT FORMATTED":IF track+1=trk-1 THEN RETURN
490 FOR i=track+1 TO trk-1:PRINT"Reading track"i"  IDs:NOT
    FORMATTED":NEXT
500 PRINT"Reading track"i"  IDs:";RETURN
510 FOR i=0 TO PEEK(&911C)-1:id=PEEK(i+ids)
520 POKE table,track:POKE table+1,0:POKE table+2,id:
    POKE table+3,2
530 table=table+4:NEXT:table=&A000
540 IF PEEK(s)=8 THEN POKE &A8A0,8:POKE &A8A2,&50:GOTO 560
550 POKE &A8A0,9:POKE &A8A2,&52
560 CALL &90D1,track,drv,s:RETURN
570 DATA C,Disk's names CAT,T,Disk onto tape,D,Tape onto disk
580 DATA S,Set tape speed
590 MODE 2:PRINT"Disk's name CAT ";rt$;CHR$(10);
    STRING$(15,"=")
600 LOCATE 1,5:PRINT CHR$(7);fi$;ca$;la$:CALL &BB18:PRINT
610 ca=1:GOSUB 330:ca=0
620 IF na$="" THEN 640
630 PRINT"found "na$"
640 PRINT:PRINT"T-Try again  E-Exit"
650 a$="":WHILE a$<>"T" AND a$<>"E":a$=UPPER$(INKEY$):WEND
660 IF a$="T" THEN LOCATE 1,6:PRINT CHR$(20):GOTO 610 ELSE RUN
670 RUN
680 'Set Tape Speed
690 MODE 2:PRINT"Set tape speed":PRINT STRING$(14,"=")
700 x=2:y=4:RESTORE 790:FOR i=0 TO 2:LOCATE x,y:PRINT i;" -> ";
710 READ a:PRINT" SPEED WRITE "i" ("a"Baud )":y=y+1:NEXT
720 a$="":WHILE a$<"0" OR a$>"3":a$=INKEY$:WEND
730 ON ASC(a$)-47 GOTO 740,750,760
740 SPEED WRITE 0:RUN
750 SPEED WRITE 1:RUN
760 POKE &B8D1,2:POKE &B8D2,23 'CPC 464 only
770 ' POKE &B1E9,2:POKE &B1EA,23 ' CPC 664/6128
780 RUN
790 DATA 1000,2000,3500
800 RESTORE 870:adr=36864:steps=28:MEMORY &8FFF
810 FOR loop=1 TO steps:check=0
820 FOR l=1 TO 10:READ a$:a=VAL("&"+a$)
830 POKE adr+(loop-1)*10+l-1,a:check=check+a:NEXT
840 READ checks$:checks=VAL("&"+checks$):IF checks<>check
    THEN 860
850 NEXT:RETURN
860 PRINT"Data Error in line"870+(loop-1)*5;CHR$(7):END
870 DATA DD,5E,00,DD,56,02,7B,32,49,90,3F6
875 DATA 7A,32,47,90,D5,DF,61,90,D1,06,4FF
880 DATA 24,21,00,A1,D5,C5,E5,DF,64,90,538
885 DATA E1,C1,D1,3A,51,BE,77,23,10,F0,556
890 DATA ED,4B,00,A1,21,01,A1,7E,B9,28,3FB
895 DATA 03,23,18,F9,45,78,32,1B,91,11,2E3
900 DATA 00,A1,21,00,40,C5,E5,D5,1A,4F,3EA
905 DATA 16,00,1E,00,DF,67,90,D1,E1,13,3CF
910 DATA 20,0A,C1,24,24,10,EA,97,32,18,30E
915 DATA 91,C9,C1,32,18,91,C9,63,C7,07,4F0
920 DATA 6C,C5,07,66,C6,07,4E,C6,07,52,3D8
925 DATA C6,07,CD,C7,90,3A,1B,91,32,1C,425
930 DATA 91,F5,7A,32,1D,91,21,00,A1,11,3B3
935 DATA 1E,91,F1,4F,06,00,ED,B0,3E,0B,3DB
```

1988

To get you in the mood for '88 **Mr Spence** from Lerwick has written a program that prints the calendar for the forthcoming year – it also prints any calendar between 1000 and 9999 AD, but that's by the by. Instructions appear in the program.

```
1 ' 1988
2 ' by TH Spence
3 ' Amstrad Action Christmas 1987
10 ON BREAK GOSUB 360:DEFINT a-z:DIM m$(12),n(12),d$(7)
20 MODE 1:BORDER 13:INK 0,10:INK 1,0:INK 5,17:INK 8,15
30 INK 9,9:PAPER 0:PEN 1:LOCATE 17,2:PRINT"CALENDAR"
40 LOCATE 5,4:PRINT"Enter any year from 1000 to 9999"
50 LOCATE 14,6:PRINT CHR$(20);:INPUT"Enter year ",y
60 IF y<1000 OR y>9999 THEN 50
70 FOR a=1 TO 12:READ m$(a),n(a):IF a<8 THEN READ d$(a)
80 LOCATE 14,a+7:PRINT m$(a)STRING$(13-LEN(m$(a)),46)a:NEXT
90 LOCATE 11,21:PRINT CHR$(20);:INPUT"Enter number of month ",m
100 IF m<1 OR m>12 THEN 90
110 MODE 0:LOCATE 8,2:PRINT y:PEN m
120 LOCATE 11-LEN(m$(m))\2,4:PRINT m$(m)
130 PLOT 0,0,1:DRAW 639,0:DRAW 639,399:DRAW 0,399:DRAW 0,0
140 IF y MOD 4 THEN n(2)=28 ELSE n(2)=29
150 d=0:FOR a=1 TO m-1:d=d+n(a):NEXT
160 d=((y-2)+(y+3)\4+d) MOD 7
170 FOR a=1 TO 7:PEN a:LOCATE 2,a*2+4:PRINT d$(a):NEXT
180 PAPER 9:FOR a=d TO n(m)+d-1
190 LOCATE ((a\7) MOD 5)*3+6,(a MOD 7)*2+6
200 PEN a MOD 7+1:PRINT USING"##";a-d+1:NEXT
210 PAPER 0:PEN 2:LOCATE 6,20:PRINT"+1 MONTH "CHR$(240)
220 PEN 3:LOCATE 6,21:PRINT"-1 MONTH "CHR$(241)
230 PEN 4:LOCATE 6,22:PRINT"+1  YEAR "CHR$(243)
240 PEN 5:LOCATE 6,23:PRINT"-1  YEAR "CHR$(242)
250 PEN 1:LOCATE 5,24:PRINT"R TO RESTART"
260 IF INKEY(0)=0 THEN m=m+1:IF m>12 AND y=9999 THEN m=m-1
    ELSE IF m>12 THEN m=1:y=y+1:GOTO 110 ELSE GOTO 110
270 IF INKEY(2)=0 THEN m=m-1:IF m<1 AND y=1000 THEN m=m+1
    ELSE IF m<1 THEN m=12:y=y-1:GOTO 110 ELSE GOTO 110
280 IF INKEY(1)=0 AND y<9999 THEN y=y+1:GOTO 110
290 IF INKEY(8)=0 AND y>1000 THEN y=y-1:GOTO 110
300 IF UPPER$(INKEY$)="R" THEN RUN
310 GOTO 260
320 DATA JANUARY,31,SUN,FEBRUARY,28,MON,MARCH,31
330 DATA TUE,APRIL,30,WED,MAY,31,THU,JUNE,30,FRI
340 DATA JULY,31,SAT,AUGUST,31,SEPTEMBER,30,OCTOBER,31
350 DATA NOVEMBER,30,DECEMBER,31
360 MODE 1:PEN 1:PAPER 0:CALL &BC02:END
```

RsxSort

If you need your arrays sorted in a tick then **Lawrence Pozzani** from Ipswich, Suffolk, has just the listing. The routine supplies you with a new command, |SORT.

The routine is only a bubble sort, and is still relatively slow, however, it is still streets ahead of the Basic equivalent.

|SORT, first array element, last array element, direction

For example,

```
|SORT,a$(Ø),a$(1ØØ),Ø or
|SORT,b$(Ø,Ø),b$(9,9),-1
```

The first and last elements may be reversed; it makes no difference to the running of the program:

```
|SORT,a$(1ØØ),a$(Ø),Ø
```

The last parameter specifies the direction of the sort. A zero results in the largest element sorted first, while a non-zero value gives a smallest-first order.

The elements passed need not make up the whole array – it is possible to sort parts, or even two parts, in different order. Strings may be any length.

Note that 464 users will need the at (@) symbol before the string name:

```
|SORT,@a$(Ø),@a$(1ØØ),Ø.
```

```
1 ' RsxSort
2 ' by Lawrence Pozzani
3 ' Amstrad Action Christmas 1987
1Ø rs=Ø:MEMORY &7FFF:a=&8ØØØ:FOR y=Ø TO 17
2Ø cs=Ø:FOR x=Ø TO 1Ø:READ a$:v=VAL("&"+a$):POKE a,v
3Ø a=a+1:cs=cs+v:NEXT:READ cs$
4Ø IF cs$<>HEX$(cs,4) THEN PRINT "Error line"26Ø+y*1Ø:rs=1
5Ø NEXT
6Ø IF rs=Ø THEN CALL &8ØØØ:PRINT"|SORT is now active!"
7Ø END
8Ø  DATA 3A,ØE,8Ø,A7,CØ,Ø1,14,8Ø,21,1Ø,8Ø,Ø375
9Ø  DATA C3,D1,BC,ØØ,ØØ,FC,A6,14,8Ø,19,8Ø,Ø51F
1ØØ  DATA C3,1E,8Ø,53,4F,52,D4,ØØ,FE,Ø3,CØ,Ø4EA
11Ø  DATA DD,7E,ØØ,DD,B6,Ø1,32,C5,8Ø,DD,4E,Ø591
12Ø  DATA Ø2,DD,46,Ø3,DD,5E,Ø4,DD,56,Ø5,62,Ø4Ø1
13Ø  DATA 6B,A7,ED,42,38,Ø5,C8,C5,D5,C1,D1,Ø672
14Ø  DATA D5,DD,E1,DD,E5,AF,32,C9,8Ø,C5,DD,Ø821
15Ø  DATA 6E,Ø1,DD,66,Ø2,DD,5E,Ø4,DD,56,Ø5,Ø42B
16Ø  DATA AF,32,C7,8Ø,DD,7E,ØØ,47,DD,7E,Ø3,Ø528
17Ø  DATA B8,28,Ø9,38,Ø7,47,32,C7,8Ø,B7,28,Ø3C7
18Ø  DATA 4D,1A,BE,28,Ø4,3Ø,24,18,45,23,13,Ø238
19Ø  DATA 1Ø,F4,3A,C7,8Ø,B7,2Ø,18,DD,23,DD,Ø551
2ØØ  DATA 23,DD,23,DD,E5,E1,C1,A7,ED,42,2Ø,Ø67D
21Ø  DATA BB,DD,E1,3A,C9,8Ø,B7,2Ø,AD,C9,3A,Ø683
22Ø  DATA C5,8Ø,B7,2Ø,E2,DD,E5,Ø6,Ø3,78,32,Ø573
23Ø  DATA C9,8Ø,DD,4E,Ø3,DD,7E,ØØ,DD,77,Ø3,Ø529
24Ø  DATA DD,71,ØØ,DD,23,1Ø,FØ,DD,E1,C3,81,Ø65Ø
25Ø  DATA 8Ø,3A,C5,8Ø,B7,CA,81,8Ø,18,DA,ØØ,Ø573
```

Discutil

Here's a useful utility sent in by **Tristan McDonald** from Luton. It adds five bar commands to Basic:

|CHECK,@a$,@e% – checks that a file (contained within a$) is on the disk. If the file is present e% will equal zero, otherwise 255 is returned. For example,

a$="program.bas":e%=Ø:|CHECK,@a$,@e%

|TYPE,@a$ – emulates the CPM TYPE command; it allows you to view the Ascii contents of a file. The string variable holds the name of the file to view. For example,

a$="program.bas":|TYPE,@a$

|PRINTER.ON – echos text written on the screen to the printer.

|PRINTER.OFF – switches off the above function.

|LOAD,@f$,a,@e% – this loads any file (held in f$) into any memory address (a). The variable e% will contain the status byte – Ø if all went according to plan; 255 if there was an error. For example,

f$="program.bin":e%=Ø:|LOAD,@f$,16384,@e%

```
1 ' Discutil
2 ' by Tristan McDonald
3 ' Amstrad Action Christmas 1987
1Ø MEMORY &AØØØ-1:MODE 2:INK 1,26:LOCATE 3Ø,12
2Ø FOR t=1 TO 28:FOR x=1 TO 1Ø:READ a$
3Ø address=&AØØØ+count:a=VAL("&"+a$):POKE address,a
4Ø count=count+1:chk=chk+a:NEXT x:READ A$
5Ø chktot=VAL("&"+a$)
6Ø IF chk<>chktot THEN 9Ø
7Ø chk=Ø:chktot=Ø:NEXT t:CALL &AØØØ:LOCATE 31,15
8Ø PRINT "Commands installed.":END
9Ø lin=t*1Ø+99Ø:CLS:PRINT "Data Error in Line ";lin
1ØØ END
11Ø DATA 3A,5A,BB,2A,5B,BB,32,DB,AØ,22,45E
12Ø DATA DC,AØ,21,16,AØ,Ø1,1A,AØ,CD,D1,4AC
13Ø DATA BC,C9,ØØ,ØØ,ØØ,ØØ,2C,AØ,C3,4F,363
14Ø DATA AØ,C3,82,AØ,C3,B4,AØ,C3,CE,AØ,6CD
15Ø DATA C3,DE,AØ,C9,43,48,45,43,CB,54,53C
16Ø DATA 59,5Ø,C5,5Ø,52,49,4E,54,45,52,392
17Ø DATA 2E,4F,CE,5Ø,52,49,4E,54,45,52,36F
18Ø DATA 2E,4F,46,C6,4C,4F,41,C4,ØØ,DD,4Ø6
19Ø DATA 4E,ØØ,DD,46,Ø1,C5,CD,7Ø,AØ,CD,4E1
2ØØ DATA 77,BC,3Ø,ØA,CD,7A,BC,C1,3E,ØØ,46F
21Ø DATA Ø2,C9,ØØ,ØØ,CD,7A,BC,C1,3E,FF,4CC
22Ø DATA Ø2,C9,DD,5E,Ø2,DD,56,Ø3,1A,47,39F
23Ø DATA 13,1A,6F,13,1A,67,11,ØØ,95,C9,29F
24Ø DATA CD,76,AØ,CD,77,BC,3Ø,26,CD,8Ø,586
25Ø DATA BC,CD,5A,BB,CD,1B,BB,DC,A7,AØ,664
26Ø DATA CD,89,BC,DA,8A,AØ,C3,AØ,AØ,C9,6E2
27Ø DATA CD,7A,BC,D2,BØ,AØ,C9,C6,Ø4,DA,692
28Ø DATA AØ,AØ,CD,Ø6,BB,C9,CD,7A,BC,C9,663
29Ø DATA 3E,C3,21,CØ,AØ,32,5A,BB,22,5B,446
3ØØ DATA BB,C9,F5,CD,2E,BD,38,FB,CD,2B,65C
31Ø DATA BD,F1,CD,DB,AØ,C9,3A,DB,AØ,2A,69E
32Ø DATA DC,AØ,32,5A,BB,22,5B,BB,C9,ØØ,4C4
33Ø DATA ØØ,ØØ,DD,4E,ØØ,DD,46,Ø1,C5,DD,3F1
34Ø DATA 5E,Ø2,DD,56,Ø3,D5,DD,5E,Ø4,DD,487
35Ø DATA 56,Ø5,CD,76,AØ,CD,77,BC,D1,D2,5E1
36Ø DATA ØD,A1,EB,CD,83,BC,D2,ØD,A1,CD,5F2
37Ø DATA 7A,BC,D2,ØD,A1,3E,ØØ,18,Ø2,3E,34C
38Ø DATA FF,C1,Ø2,C9,ØØ,ØØ,ØØ,ØØ,ØØ,ØØ,28B
```



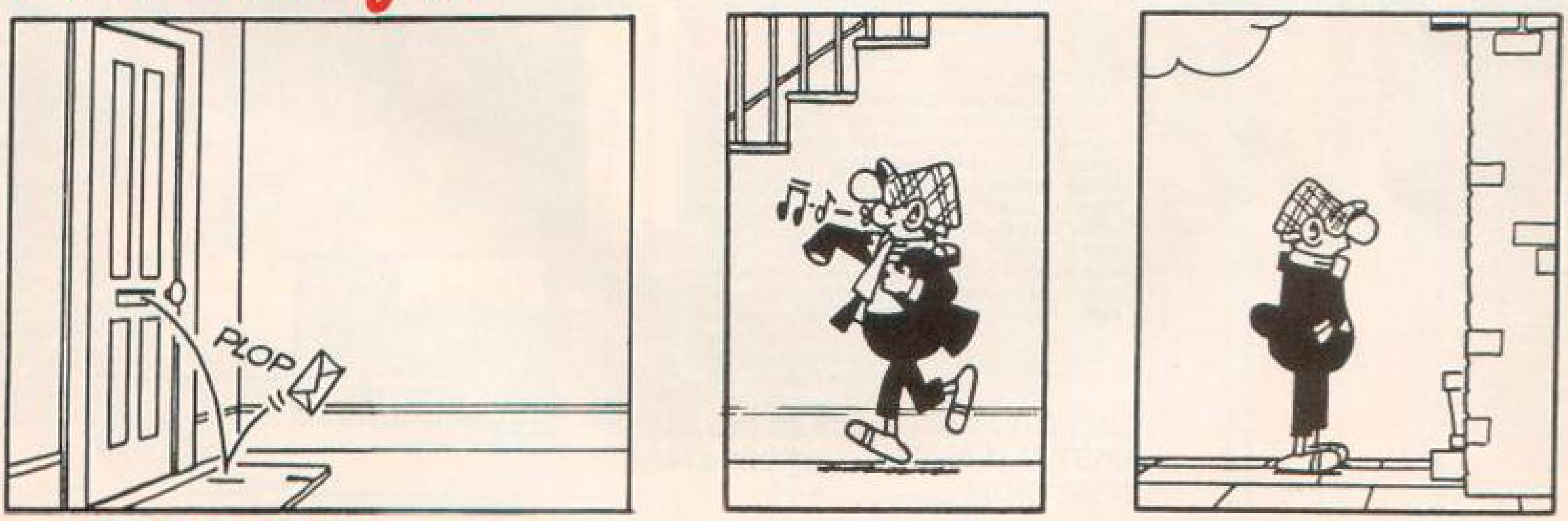

Late one evening...



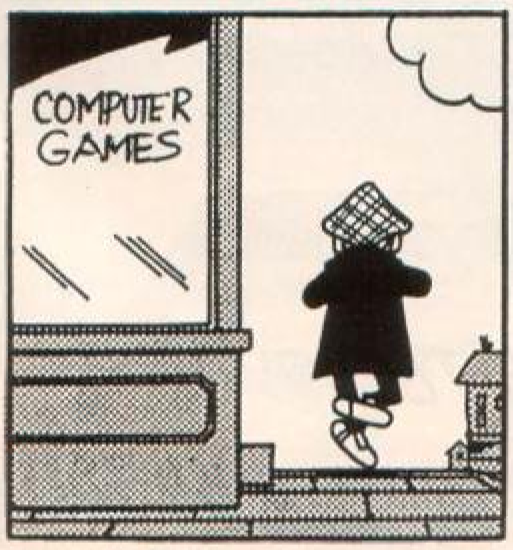
...even later



...next day...

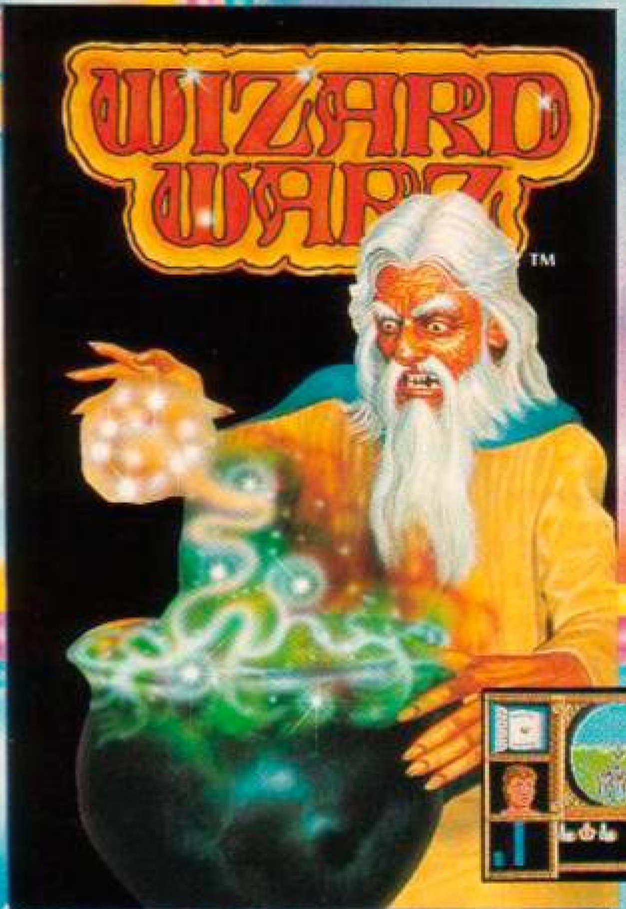


...success



GO!

A revolution in standards of quality and entertainment has taken place in the software world!



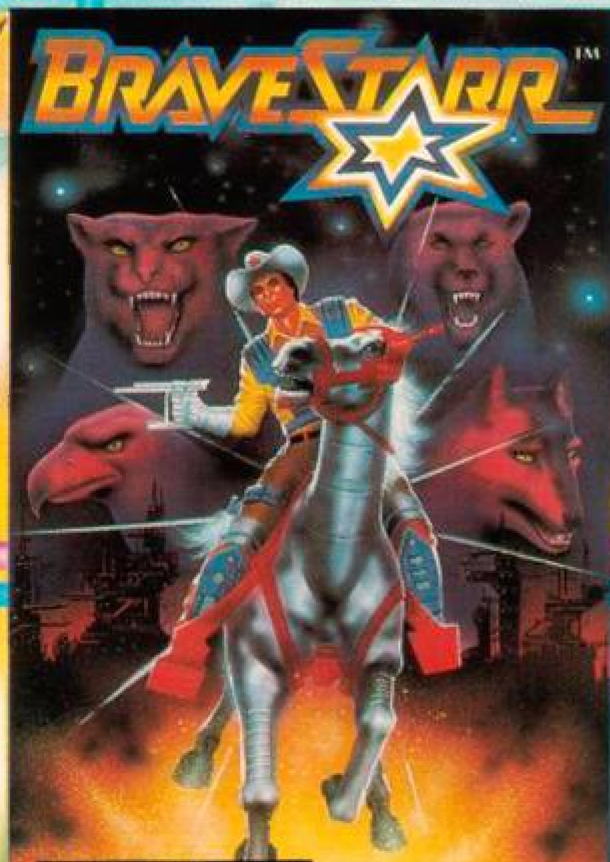
CBM64/128
Cassette £9.99
Disk £11.99
AMSTRAD
Cassette £9.99
Disk £14.99
SPECTRUM
Cassette £8.99
ATARI ST
Disk £19.99

WIZARD WARZ

A game that takes fantasy role playing one step further. Witness the superb graphics that set Wizard Warz apart from other strategy games and see the effect of your spells as they hurtle across the screen combining fast moving action with depth of gameplay in a true fantasy role playing game that's a real strategical challenge.

© Copyright Ltd. 1987 CANVAS Software.

Screen shot from CBM version





BRAVESTARR

The discovery of Kerium on the planet of New Texas brings a rush of fortune hunters... some are good, most are bad, outlaws and gamblers, terrorising and robbing. Out went the cry for an army of lawmen, but in reply the Earth Council sent one man – Marshall Bravestarr – he was enough! A man of determination and courage, blessed with amazing animal powers that give him unimaginable capabilities. He needs them all in overcoming a world full of rejects and scum led by the malicious and greedy TEX HEX. In an era of imitations Bravestarr is an original. A compelling mix of the exciting and unusual bringing into one the legendary old West and the space frontiers of the future.

© Copyright 1987 by Filmation Ltd. All rights reserved.

Screen shot from Amstrad version

CBM64/128 Cassette £9.99 Disk £11.99
AMSTRAD Cassette £9.99 Disk £14.99
SPECTRUM Cassette £8.99

TOMORROW'S SOFTWARE TODAY

GO! UNITS 2/3 HOLFORD WAY, HOLFORD, BIRMINGHAM, B6 7AX. TEL: 021 3563388.

Absolute Beginners



The first in a series of articles which will take you from complete ignorance to COMPLETE mastery of Basic

How to use this article

You can read any amount of theory about computers, but there's no substitute for hands-on experience – learning at the keyboard. To get the most from the article, sit down in front of your Amstrad, turn it on and type in the examples as you come to them in the text. Don't worry about remembering everything as you go: there's a summary at the end of the article.

The article assumes that you know how to set your Amstrad up and switch it on, but as little else as possible. Because of this it may start too simply for some of you. Don't worry, you will be able to join as the series matures.

What is Basic

Basic is a computer language – a way of telling a computer what to do. Computers are machines which obey instructions, but these instructions must be in the right form. If you type in something which The computer doesn't understand, you'll get an error message – a piece of text printed up on the screen telling you you've done something wrong. Don't worry if this happens. You can't harm the computer.

Action

If you haven't already switched your Amstrad on, do so now. If you have a 464, the screen should read:

```
Amstrad 64K Microcomputer (v1)
(c) 1984 Amstrad Consumer Electronics plc
and Locomotive Software Ltd

BASIC 1.0

Ready
```

If you have a 664 or 6128, there will be slight differences.

The word "Ready" is a prompt – it invites you to do something: type commands into the machine. The rest of the text on the screen is the start-up-message. This is rather like the title page of a book; it serves no real purpose, other than to let you know that the computer is working ok.

Since we're going to be doing quite a bit of work on the screen, we might as well start by clearing off the clutter of the start-up-message. We'll try doing this in English, first. Type "Clear the screen" and press the return key. You should get the message "Syntax error" and then the "Ready" prompt. The "Syntax error" means that the computer didn't understand what you typed in, and the "Ready" prompts you for further input.

If we want to clear the screen, we have to give him his instructions in Basic. Type CLS and press the return key – if all is well, the screen clears and the "Ready" prompt appears in the top left-hand corner. Cls is the Basic command which tells The computer to clear the screen. If it didn't work you probably typed it wrong, so try again.

Typing commands

It makes no difference whether you type commands in capital or lower case letters, or even a mixture of the two – the computer takes such things in its stride. What it cannot cope with, however, are spelling mistakes. Type CLSS or CSL and you will simply get the dreaded "Syntax error" message. Even where the intended word is obvious to human eyes – RESTOR instead of RESTORE, for example – the computer will still refuse to accept the offending command.

If you notice a typing error before you press the return key, you can correct it. Use the left and right arrow keys to move the cursor over the mistake. Now remove any unwanted letters by using the Del key, or insert missing ones simply by typing them in the normal way. Once you are satisfied with the instruction, press the return key. Your CPC won't act on it until you do.

Case control

When the computer is first switched on, and you attempt to type anything at the keyboard, text will appear in lower case. You can get upper case (or capital) letters by either holding down Shift and pressing the required key, or by hitting Caps Lock. Anything you type after pressing Caps Lock will appear in upper case. To revert to lower case simply hit Caps Lock again.

The Control key produces a different set of characters when held with another key on the keyboard. For example, try holding Control (or Ctrl) and A. And then experiment with other keys.

Below is a list of the more prominent keys on the keyboard. Learn what they do: you're stuck without them.

Esc – produces "Break" when hit. Will pause a running Basic program if pressed once; two taps will return you to the ready sign.
Caps Lock – toggle between upper and lower case.
Shift – causes characters to appear in upper case. It also lets you access the top symbols that share certain keys, like !, #, % and +.
Control – gives you access to a host of different symbols.
Return (or Enter) – after it's pressed the computer acts.
Del – moves the cursor back a space, deleting anything in its way.
Clr – clears a character in front or to the right of the cursor.

Game over

You've had a little play with your Amstrad; you should know what most of the keys do, you've even learnt one Basic command and you now know why "Syntax error" appears if any mish-mash of characters is entered.

Clearing the screen should be no problem to you – just enter Cls – however, there is an alternative method. Try typing MODE 1 and then press return. Do the same, but change the 1 to a 0 or even a 2. Can you guess what is happening? Find out next issue.

Command summary

Okay, you haven't learnt a staggering number of commands, one to be precise, but learning the effects of certain keys is far more important to start with.

CLS – CLears the Screen

PROBLEM ATTIC



RpM goes on his latest problem solving escapade. If your CPC's in danger, if you need help, then perhaps you can contact the AA team.



Educating Rita

My young daughter owns an Amstrad 6128: in order for her to get as much use out of it as possible this middle-aged mum has to get to grips with it first. So, I wonder if you could help me with the a couple of enquiries?

Do you know of a firm that stocks a comprehensive selection of disk-based educational software? I have tried my local retailers, but to no avail.

Secondly, how does one poke into a game? We entered the disk poke for *Head Over Heels* detailed in the July issue, but where do we go from there?

Mrs JB Paterson
Ayrshire

School Software has a healthy selection of educational software. From maths to mapwork and better spelling to biology; it has suitable topics for most age ranges. You can contact them on 010 353 6145399. Or write to Tait Business Centre, Dominic St, Limerick, Ireland.

To get a poke working type the thing in and, if it's particularly long, save it to disk or cassette (SAVE"filename" will do). With a disk poke it is usually a case of inserting the game disk and entering Run. Tape based pokes come in two forms, Method 1 and Method 2. There is usually a box printed in the Cheat Mode section that explains how to deal with these.

Ram sham

What sort of chips are held from &AF00 onwards? The reason I ask is that when I typed in Filecopy (Type-Ins AA 21) and reset the machine, the code located at &AF00 was still there.

Shane Cook
Cornwall

Memory consists of ram. It starts at 0 and ends at &FFFF (65535). So, everything above &AF00 is still ram. Although it is possible to use parts of memory this high, it is inadvisable as the system and expansion roms pack this area with variables. When the machine is reset – not switched off – the program memory pool between 0 and roughly &A500 is filled with zeros; anything above this is left intact.

Protecting Ascii

I have a Diary program that stores data in standard Ascii files. How can I protect this Ascii data from prying eyes? For example, I have a file containing data regarding a bank account, but no matter how secure my main program the Ascii file can easily be inspected.

Andy Mair
Kent

Below is a very simple method of encrypting an Ascii file. It simply loads the file, adds five to the value of each character and saves it again. If you wish to load the file back use a similar routine, but decrease – rather than increase – each Ascii character by five.

```
10 OPENIN"file":OPENOUT"file"
20 WHILE NOT EOF
30 INPUT #9,a$
40 FOR t=1 TO LEN(a$):b$=MID$(a$,t,1)
50 v=ASC(b$)
60 v=v+5:c$=c$+CHR$(v):NEXT
70 PRINT#9,c$
80 WEND
90 CLOSEIN:CLOSEOUT:a$="*.bak":|ERA,@a$
```

Keyboard clash

Why when I play certain simultaneous two-player games do the controls interact. For example, in *Gauntlet* (I use the second joystick) if I hold down fire and press up, and my opponent (using stick one) moves in the up position, then the character corresponding to my opponent starts firing. Is there something wrong with the joysticks? Or is there a fault with my Amstrad, or even the game?

Matthew Drake
Leeds

There is nothing wrong with your joysticks, CPC or game. Unfortunately this is a fault in the computer's design; problems only occur when two people use certain key or joystick combinations simultaneously. Keys are wired together in a matrix as shown below.

If three keys, that represent the corners of a square, are held down

Column:	A	B	C	D	E	F	G	H
Row								
0	up	right	down	f9	f6	f3	enter	f.
1	left	copy	f7	f8	f5	f1	f2	f0
2	clr	[	return	]	f4	shift	\	ctrl
3	^	-	@	P	;	:	/	.
4	0	9	O	I	L	K	M	,
5	8	7	U	Y	H	J	N	space
6	6	5	R	T	G	F	B	V
7	4	3	E	W	S	D	C	X
8	1	2	esc	Q	tab	A	lock	Z
9	Jup	Jdown	Jleft	Jright	Jfire			del

simultaneously then the fourth key in the square will appear to be pressed. For example, hold the I, P and ; keys together. The character L will appear.

A similar thing occurs when you press up and fire together on the second joystick – whose keys, incidentally, are mapped on the keyboard as 6 for up, 5 for down, R for left, T for right and G for fire – and up on the first joystick. Nothing can be done about this. If a simultaneous-player game allows you to redefine keys then use a set that will not cause keyboard conflict, that is, form the basis of a square in the above table.

Dotty stripes

I am going dotty about the border stripes that appear when tape games load (*Batman*, for example). Please could you explain how and why the border does this? A Basic listing would be handy.

Duncan Jakeway
Norwich

The reason why many commercial games have flashing-border loaders is simply to let you know that something is happening – anyway, it looks nice.

The effect is achieved by changing the colour very quickly. This isn't possible by using the in-built firmware or Basic commands, but instead the gate array – which handles colour swapping, rom selection, and generates interrupt, clock rates and video signals – must be directly accessed. It is only just possible to do this from Basic. Try the routine below:

```
10 OUT &7F00,16:OUT &7F00,64+(RND*63)
20 GOTO 10
```

You will notice the border has stripes running through it. The first Out command specifies the required Pen or Border (numbers between 0 and 15 select Pen, 16 for Border). The second Out chooses the colour. If you change 16 in line 10 to 0 and Run the program, the background will flash. Similarly if you change the value to 1 any characters on the screen will flash.



PHANTOM
CLUB
Join the Phantom Club and a special band of Super-Heroes possessed with strange and deadly powers.
They have become diverted to the path of evil by the wicked overlord ZARG.
Over 500 rooms to discover as you attempt to put the heroes back on the right track and restore the forces of good to the Phantom Club ... but beware, your former friends are now your adversaries and you know how powerful they can be!
SPECTRUM
7·95
EACH
AMSTRAD
8·95
EACH
ocean
Ocean Software Limited 6 Central Street Manchester M2 5NS.
Telephone: 061 832 6633 Telex: 669977

ROMANTIC ROBOT *present*

1988 – THE YEAR OF THE ROBOT



Q: WELL, I'VE HEARD OF THE YEARS OF THE CAT, PIG, AND EVEN DRAGON – BUT THE YEAR OF THE ROBOT?

A: Absolutely! And ROMANTIC ROBOT wish to make 1988 a truly memorable year (if not us, who will?). To kick off with, there is an INTRODUCTORY OFFER OF **£29.88** ON RODOS, plus a truly unique 1988 NEW YEAR MAIL ORDER PRICE OF MULTIFACE TWO – **£39.88!**

Q: I LOVE SALES. BUT WHAT'S SO LIKEABLE ABOUT RODOS and MULTIFACE?

A: RODOS is too powerful and complex to be summed up here – please send a SAE for full info. MULTIFACE is (simply) a MUST for ANY CPC owner: it can copy and change programs as you wish.



Q: OH, DO I NEED TO DO ANY PROGRAMMING TO MAKE BACK-UPS?

A: NO! – NOT with the MULTIFACE TWO – it is in fact the ONLY product on the market which works FULLY AUTOMATICALLY. You LOAD any program as usual, RUN it for as long as you like and when you wish to make a copy you just press the MULTIFACE's red button and follow the menu and on-screen instructions.

Q: HOW DOES IT WORK THEN? IS IT EASY? USER-FRIENDLY? ERROR-TRAPPED? IDIOT PROOF? GUARANTEED?

A: YES! It works a treat and it could not be easier. The menu gives four basic options – to **SAVE** a program, to **RETURN** to continue it, to **JUMP** (say to your own routines – invaluable for hackers) and **TOOL** to access the MULTI-TOOLKIT set of built-in utilities. For example pressing **S** to **SAVE** will first allow you to **NAME** the back-up and then let you save a **PROGRAM** or just a **SCREEN** to **TAPE** or **DISK**. Before the saving itself, MULTIFACE compresses the program so that it takes the least amount of space on tape/disk and will re-load as quickly as possible. Once a program is saved, you can **RETURN** or **JUMP**, use the **TOOLKIT** to change it, **SAVE** it again, etc.

Q: DON'T YOU CORRUPT THE SCREEN WITH YOUR MENU, INSTRUCTIONS, PULL DOWN WINDOWS, ETC.?

A: NO. MULTIFACE TWO has its own memory (8K ROM & 8K RAM) and a lot more hardware – thus when it finishes its job or when you re-load your back-ups, everything is **FULLY** and **AUTOMATICALLY** restored: screen modes, colours, windows, etc. This is essential and NO OTHER DEVICE CAN DO IT!

Q: OK, SO MULTIFACE CAN COPY FROM **TAPE TO DISC**, *BUT CAN IT DO* **TAPE TO TAPE** *OR* **DISC TO DISC** *OR* **DISC TO TAPE?**

A: Of course it can. MULTIFACE saves either to tape or disc and it saves whatever happens to be in the computer at that time – no matter how you loaded it in.

Q: SO FAR SO GOOD. BUT CAN'T I DO ALL THIS WITHOUT THE MULTIFACE?

A: ABSOLUTELY NOT! First, you need a hardware device, a "magic box", to be able to stop and copy programs AT ANY STAGE – be it upon loading, half-way through the game, etc. Tape/disc copiers can only try to copy programs BEFORE they load: if there are unorthodox loaders, speedlocks, protections against copying, etc., you'll end up with a problem – but not with a back-up. Also, with MULTIFACE you can poke infinite lives, ammunition, etc. – and then SAVE.

Q: MULTIFACE IS NOT THE ONLY 'MAGIC BOX' ON THE MARKET – WHY SHOULD I BUY IT MORE THAN ANYTHING ELSE?

A: There are four devices on the market. Action Reply by Datel Electronics, Disc Wizard by Evesham Micros, Mirage Imager and MULTIFACE TWO. Each manufacturer would naturally argue his product is the best buy – fortunately (for you and us), MICRONET recently compared all four units and MULTIFACE TWO came out the best in literally all respects: the most successful one – 100%!, the ONLY AUTOMATIC ONE, the FASTEST ONE both in LOADING *AND* SAVING time, the one taking the LEAST ROOM when saving – and you still get a couple of EXTRAS: a RESET button and an extensive and unique MULTI-TOOLKIT.

Q: MULTIFACE IS IT! THE RIGHT THING IN THE RIGHT TIME! IF ONLY IT PAID FOR ITSELF...

A: But it does! By the time you buy 8 programs on tape instead of disc, you will have saved £40 – the cost of the MULTIFACE. The money you save on further programs is all yours .... **MULTIFACE – worth every penny, saves you pounds!**

Romantic RObot Disc Operating System

Just one ROM will turn your CPC into a professional set-up: With RODOS you can attach additional disc drives – 40/80 track, single/double sided and store more than 800k per disc.

RODOS NEW RR

But RODOS is in fact much more than a fast and perfect DOS. RODOS also gives you RANDOM ACCESS, PRINTER BUFFER, full ROM manager, SILICON DISC, altogether 54 new bar commands, enormous power – all this and much more for £29.88 only!

multiface two

NEW YEAR MAIL ORDER SALE PRICE £ 39·88

RODOS

INTRODUCTORY OFFER-ON ROM £ 29·88

The special price of £39.88 applies strictly to mail orders received with the coupon below before the 29th February 1988.

Tape-to-disk at the touch of a button. Ridiculous, you may say, but it works every time. *Multiface* can stop any program in its tracks and save the program from memory to either tape or disk. It's completely fool-proof. Similar products have had problems with screen size, colour and even sound; *Multiface* can handle all these without a second thought.

That alone would have satisfied many people, but Romantic Robot has gone one step further, incorporating a memory editor. No program is safe with this: everything is out in the open, including the Z80 registers, CRTC data and any part of memory.

Don't be fooled into thinking this will result in mass piracy, however. The *Multiface* unit itself must be plugged into your Amstrad to allow reloading of a program it saved.

Multiface II must be the cleverest hardware device at present – a necessity for disk owners who thought they were stuck with loading from tape every time.

AMSTRAD ACTION JANUARY 1987

THE YEAR OF THE ROBOT · BE PART OF IT

I order MULTIFACE 2 (£39.88) ☐ / RODOS (£29.88) ☐ plus p&p UK £1, Europe £2, Overseas £3

I enclose a cheque PO for £.......... or debit my [Access] [Visa] No [ ] Card exp..........

Name & address ....

ROMANTIC ROBOT UK LTD 15 Hayland Close London NW9 0LH ☎ 24 hrs [Access] [Visa] 01-200 8870 AA

First Bytes

So, hexadecimal horrifies you, maybe memory mystifies, perhaps low and high bytes perplex, or are opcodes an ordeal? Whatever the problem, we have the solution in this new section devoted to the complete novice machine code programmer

Most important, before attempting to learn Z80 assembler, are the binary and hexadecimal number systems. For they are the only numbers that computers understand. Sure, there's Basic, but that is a high level language; it is simply a large, complex machine code program. To really get to the heart of a computer and create speedy, spectacular programs you will have to learn the machine's language, numbers.

Hopefully you are familiar with denary base 10, it's what you use everyday. This system allows you to count past 10 and below 1. Digits to the left in a number are of greater value than those to the right. For example, in the number 55 the first 5 is 10 times the value of the second:

```
50 + 5
  55
```

In larger decimal numbers the digits to the left multiply successively in sizes of 10:

```
5*1000 + 5+100 + 5+10 + 5*1
          5555
```

The reason decimal is also known as base 10 is purely because the values of digits increase in multiples of 10.

Computers, being basically electrical in operation, can only recognise two states; on or off (usually represented as 1 and 0). This counting system is better known as binary or base 2. Any number in binary consists solely of 1's and 0's. For example,

```
1*2 + 1*1
   11
```

The binary value 11 would be three in decimal. Remember the multiplying factor is the base – two in this instance. As there are various base systems around, it gets confusing as to which you are actually looking at. A convention exists which overcomes this ambiguity:

101_{10} is One hundred and one in base ten.

101_2 is five in base two.

Your Amstrad and most home computers today use eight-bit (8 individual digits) registers and can therefore store binary values up to 11111111, or 255 in decimal:

```
128 + 64 + 32 + 16 + 8 + 4 + 2 + 1 =  255
  1    1    1    1   1   1   1   1    digit equivalent
128   64   32   16   8   4   2   1    in base 10
```

You could look at binary in a different way. Say you have the number 10110110:

```
    1*128    0*64    1*4    1*2    0*1
               10110110
         1*32    1*16    0*8
```

So 10110110_2 = 1*128 + 0*64 + 1*32 + 1*16 + 0*8 + 1*4 + 1*2 + 0*1 = 182_{10}

Just to make sure you have a thorough understanding of binary try converting the following to decimal:

1. 00110011 **2.** 10100110 **3.** 00000100

Answers next issue. Also, performing simple mathematic functions such as adding and subtracting – with binary and a look at hexadecimal (base 16).

The Z80 Processor

Back in the early seventies Intel cornered a large share of the microprocessor market with the introduction of the 8080 chip. At that time Intel had little competition. It was between 1974 and 1975 that Zilog developed the Z80. But rather than develop a completely new processor they opted for the successful format of the 8080. This is why the Z80 is upwards-compatible from the 8080; which means all programs written for the 8080 will run on the Z80.

The Z80 (or rather the slightly faster Z80A) is the micro-processor at the heart of your Amstrad machine. It is a fairly powerful beast, capable of accessing a maximum of 64k and manipulating 8-bit data in its internal registers. Get used to it, you're going to hear a lot more about it.

Numeric conversion chart

Decimal	1	2	3	4	5	6	7	9	9	10
Binary	1	10	11	100	101	110	111	1000	1001	1010
Hexadecimal	1	2	3	4	5	6	7	8	9	A

Decimal	11	12	13	14	15	16
Binary	1011	1100	1101	1110	1111	10000
Hexadecimal	B	C	D	E	F	10

Learn the lingo

Assembler – program to turn assembly language to machine code.
Assembly Language – a language designed to make it easier to enter machine code programs into a computer.
Bit – one digit, either zero or one, in a binary number.
Bugs – errors which inevitably creep into a program.
Byte – eight bits that can be any number between zero and 255.
Machine code – many people confuse this with assembly language. The numbers that the Z80 processor understands and acts upon.
Memory – the space in which programs sit. 64k of it, 128k in the 6128.
Peek – a command that shows the contents of a memory location.
Poke – lets you place a specified value into any memory location.
Processor – Z80 in the Amstrad's case. It's the brain of the computer.
Register – a special location in the processor (also exists in certain other chips) that stores a number.

Hackers Only

If bits, bytes, mnemonics and machine code are easily digested – and you have fair knowledge of assembler – but could do with a few interesting and possibly useful routines, then look no further than this box.

We kick off this month with a common, but handy, routine that prints the contents of the A register as a two-digit hexadecimal number.

Entry conditions: A contains number to print. Exit conditions: AF and BC corrupt. Length: 28 bytes. Code type: relocatable

```
                                  ;A contains number
06 02              LD B,2         ;used as a countdown
4F                 LD C,A         ;C retains original value
1F                 RRA
1F                 RRA
1F                 RRA            ;move 4 high bits into
1F                 RRA            ; low part of A register
        mask
E6 0F              AND &F         ;mask them
FE 0A              CP &A          ;and jump if greater
30 07              JR NC,greater  ; than 10
C6 30              ADD A,&30      ;turn number in A into
                                  ; character from 0 to 9
CD 5A BB           CALL &BB5A     ;print digit
18 05              JR bye
        greater
C6 37              ADD A,&37      ;turn number in A into
                                  ; character from A to F
CD 5A BB           CALL &BB5A
        bye
79                 LD A,C         ;get original value of A
10 EB              DJNZ mask      ; perform operation on
                                  ; remaining bits
C9                 RET
```

Can you come up with a similar routine that prints a 16-bit hexadecimal routine? Solution next issue.

K & M COMPUTERS

★LOW PRICES ★ FAST SERVICE ★

★ MERRY CHRISTMAS TO ALL OUR THOUSANDS OF CUSTOMERS ★

★ADVENTURE★	CASS	DISC
Murder on Atlantic	£11.95	£15.95
The Pawn 6128 Only	–	£15.95
Guild of Thieves(6128)	–	£15.95
Hollywood Hijinx	–	£21.95
Lurking Horror	–	£21.95
Pas'ngrs on Wind II	£7.99	£11.95
Silicon Dreams	–	£15.95
Jewels of Darkness	–	£15.95
Killed until Dead	£7.99	£11.95
Knight Orc ☎	£11.95	£15.95
Gnome Ranger (Disc 6128/PCW)	£7.99	11.95

★COMPILATIONS★	CASS	DISC
Comp. Hits 6 Vol. II	–	£11.95
Comp. Hits 6 Vol. III	–	£11.95
Hit Pack Six	£7.99	£11.95
5 Star Vol 2	£7.99	£11.95
Comp. Hits 10 Vol. IV	£7.99	–
Star Games II	£7.99	–
Sold a Million II	£7.99	£11.95
Sold a Million III	£7.99	£11.95
Amtix Accolades	£7.99	£11.95
Game Set and Match	£10.95	£14.95
Hit Pack Vol. II	£7.99	£11.95
Now Games 4	£7.99	–
Solid Gold	£7.99	£15.95
Durell Big 4 vol II	£7.99	£11.95
Kidsplay (Backpack)	£7.99	–
Epyx Epics	£7.99	£15.95
Hit Pack Six Vol.2	£7.99	£11.95

★STRATEGY/SIMULATION★	CASS	DISC
F15 Strike Eagle	£7.99	£12.95
Final Frontier	£7.99	£11.95
Silent Service	£7.99	£11.95
Amageddon Man	£10.99	
Blue War	–	£11.95
World Class L.Board	£7.99	£11.95
Guadal Canal	£7.99	£11.95
Footbal Director (464)	£7.50	–
Gary Linekars 5.Star Soccer	£7.99	£11.95
Football Manger II	Phone	

★ARCADE★	CASS	DISC
Driller ☎	£11.95	£14.95
Renegade	£6.99	£11.95
Battle Ships ☎	£6.99	£11.95
Hybrid	£7.99	£11.95
Indiana Jones	£7.99	£11.95
Trantor	£7.99	£11.95
Enduro Racer	£7.99	£11.95
Nigel Mansells Grand Prix	£7.99	£11.95
Thundercats	£6.99	£11.95
Elite	£10.50	£13.95
Starglider	£11.95	£15.95
Spy Hunter ☎	£7.99	£11.95
720° ☎	£7.99	£11.95
Centurions	£6.99	£11.95
Exelon	£6.99	£11.95
Captain America	£7.99	£11.95
Game Over	£6.99	£11.95
Metrocross	£7.99	£11.95
Bubble Bobble ☎	£6.99	£11.95
SuperSprint	£7.99	£11.95
Last Ninja ☎	£7.99	£11.95
Gauntlet II	£7.99	£11.95
Mutants	£6.99	£11.95
Outrun ☎	£7.99	£11.95
California Games	£7.99	£11.95
Asphalt	£7.99	£11.95
Athena ☎	£6.99	£11.95
Victory Road ☎	£6.99	£11.95
Road Runner	£7.99	£11.95
Prohibition	£7.99	£11.95
Mystery of the Nile	£6.50	£10.50
Death Wish III	£7.99	£11.95
Wizard Warz	£7.99	£11.95
Galactic Games	£7.99	£11.95
Rampage ☎	£7.99	£11.95
Jackal ☎	£7.99	£11.95
Not a Penny More, Not a Penny Less	Phone	
Gryzor ☎	£6.99	£11.95
Buggy Boy ☎	£6.99	£11.95
Rygar ☎	£7.99	£11.95

★ACCESSORIES★	
Amsoft 3" Discs £25.95 for 10	each £2.75
AMX Mouse & Art Pkge	£61.95
DMP 2000 Printer	£159.95
Cover Set 464/6128 col./green	£6.95
Cover Set DMP 2000	£4.50
MP2 Modulator(Please☎)	£28.95
Amstrad DMP2000 Printer Ribbon	£5.50
Lockable 3" Disc Boxes (hold 20)	£12.95
AMX Mouse Mats	£4.95

★JOYSTICKS★	
Amstrad JY2	£13.95
Cheetah Mach I	£13.95
Euromax Pro 5000	£13.95
Datex Joyball	£15.95
Slick Stick	£6.99
Cheetah 125	£7.95
Euromax Arcade	£15.95
Phasor One	£11.95
Economy Joystick	£6.99
Konix Speedking	£10.95
Starfighter	£9.50

★BUS/UTIL★	
Tas Sign 6128/PCW	£25.95
StopPress (no mouse)	£42.95
Discology (Siren)	£11.95
Tascopy	£10.95
Tasprint	£10.95
AMX Max	£16.95
Mini Office II	£15.95
Plan-It	£15.95
Adv. Art Studio	£20.95
Adv. Music System	£24.95
Protext	£21.95
Masterfile III	£34.95

★GAMES CONSOLES★	
Nintendo Basic Console	£95.99
Nintendo Deluxe	£152.99
Robotic Buddy	£41.99
Sega	£95.99

★ Software supplied for,
Atari St, Amiga, Comm. 64, Spectrum, BBC, Atari, IBM, Apple, MSX,
All at discount prices ★

★PCW & PC Software available with BIG discounts ★
★ Nintendo & Sega consoles and games available with BIG discounts ★
★ All prices include post and packing ★ In stock items sent by return ★
★ All budget titles stocked £5.50 for 3 (£1.99) ★
★ We also have an extensive range of C.P.C. Software for hire –
Free Membership – Send for details ★
★ Cash with order or send for full lists ★ EEC & Europe at no extra charge ★
★ Other overseas add £2 to order (software only)
★ British postal orders or sterling cheques ★ 24hrs phone 0695 29046 ★
★ *All new releases on day of release* ★
★ Digitising Service for AMX STOPPRESS ★★★★ Printer Ribbon re-inking £1.50 per ribbon ★
K & M COMPUTERS, 40 FAIRSTEAD, BIRCH GREEN, SKELMERSDALE, LANCS. WN8 6RD

*From **NEMESIS** (The Original Meddlers)*

BONZO SUPER MEDDLER (FOR ANY CPC)

*THE dedicated **TAPE TO DISC** utility*
NOW including the devastating
BONZO's HACK PACK

BONZO hits 500!

BONZO SUPER MEDDLER is GUARANTEED TO TRANSFER MORE GAMES THAN ANY OTHER PROGRAM; THE FIRST PERSON TO FIND A MORE SUCCESSFUL PROGRAM WILL RECEIVE TREBLE THEIR MONEY BACK !!
Sounds familiar? BONZO always could transfer more!

THE BIG QUESTION
We give details of how to transfer **OVER 500** TOP GAMES.
Why cannot our only competitor reach even half that total?

THE BIG ANSWER
BONZO SUPER MEDDLER is the SUPREME utility, and ALSO includes the answer to the "hitherto impossible" *SPEEDLOCKS !BONZO SUPER MEDDLER does NOT use a massive "host" program to run the transferred games. ALL transfers "stand alone".*
BONZO uses LESS memory, transfers MORE, COSTS LESS and gives REAL support to the user.
We'll allow you £2.00 for your old D.P disc in part exchange! BSM tapes upgraded to BSM + HACKPACK DISC ... £8.00 (send inlay)

BSM & HACKPACK DISC £11.50. ONLY

NEW **BONZO'S DOO – DAH**

"This is the best I've seen in a long while ... I recommend it"
Amstrad Action, June 1987

Features **BIGBONZO FORMAT**
A REALLY USABLE 203K per SIDE FORMAT, with all the support files to maximise it's use. *PLUS* – All the disc housekeeping features that you could possibly want, including "Cloning", Directory & Sector edit, Disc search, Formatting, Read sectors, Filecopy, etc. *ALL FUNCTIONS* are effective on normal, enhanced, and the vast majority of "funny formats".

MANY UNIQUE FEATURES supplied on **DISC £11.50**

BONZO BLITZ – NEW SPEEDLOCK's to DISC !!
A *TOTAL* utility for SPEEDLOCKS, straight to DISC from TAPE! NO RE-NAMING, SCREEN INCLUDED, ABSOLUTELY NO "JUGGLING".

WHAT CAN IT DO ?
There's not many that it can't do ! BLITZ works on a standard 464 as well as the 6128 & expanded machines. All our claims are based on user reports. A small selection for flavour !
GAMEOVER, SLAPFIGHT, MAG MAX, MARIO BROS., ARMAGEDDON MAN, ARMY MOVES, F15 STRIKE, SPACE SHUTTLE, BLACK MAGIC, WARLOCK, METROCROSS, DIZZY, TRANSMUTERS, SHAO LINS RD, ARKANOID, COBRA STALLONE, DALEY's SUPERTEST, CATCH 23, MIKIE, SCALEXTRIC, SARACEN, SHORT CIRCUIT, EXPRESS RAIDER, XEVIOUS, TOURNAMENT LEADERBOARD, SCRABBLE, WORLD SERIES BASEBALL, etc.

DISC Only – just **£10.00** inc.

ALL WITH FULL INSTRUCTIONS. We give FULL after sales support and a regular NEWSLETTER.
Overseas please add £1.00 to total.
ORDERS with cheque/postal, sent by return post:
NEMESIS (AA)
10 Carlow Road, Ringstead, Kettering, Northants NN14 4DW

FIRST BYTE SOFTWARE

PO BOX 50, YEOVIL, SOMERSET. BA20 1XS
TELEPHONE (0935) 851265

FREE
Telephone help-line until end of February. After Feb £5 per month.

The ADDRESS System

The Address System is a powerful address and telephone number storage/printing package for the Amstrad CPC 6128

The Address System offers:

- Fast, friendly operation
- Speedy search, replace and edit functions
- Room for over 3000 entries
- Optional silicon disk storage
- Selective printing
- User-customised print routine

For **£14.95** on disk

The Address System represents tremendous value for money — *Send for your copy today.*
Alternatively phone for more information on
(0935) 851265.

FREE
Empty Tummy — 12 room game incorporating foot-tapping music, devilish gameplay and digitized effects.

Micro-Music Creator

The Micro-Music Creator lets you produce startling three-track musical compositions and digitised sound effects which can be incorporated into your own software — with the minimum of effort.

You don't need a music degree to operate it either. It is powerful and sophisticated, and yet is so simple to use that it soon has you creating Beethoven-type symphonies.

Just look at what it offers:

- Simple pull-down menu selection
- Treble and bass clefs
- 15 pre defined sounds (from piano to cow bell)
- Uses standard musical notation
- Music will play in the background
- Records and plays back digitized sounds.

Available on tape **(£9.95)** disk **(£14.95)**
and rom **(£24.95)**

GREAT VALUE — **10 BLANK 3" DISKS JUST £18.95**

Please make cheques/PO's payable to
First Byte Software.
All prices include postage and packing.
Phone or write for a catalogue — **they're free**

AVAILABLE SHORTLY
3" DISC DRIVE CLEANER
PLEASE WRITE OR PHONE FOR DETAILS

Basic Word-Processing:2

The second in a six part series by Bill Simister on how to create and use a word-processor entirely in Basic.

Beginners at computing who wish to use a computer to help with their writing, will need a full explanation of the program in order to use all its potentialities. Embodied in the program are ways in which it can be used for many purposes, and the following details should help anyone to develop their own programming skills. More advanced CPC users may also find many tips.

Lines 10 to 50 use up a little memory, but they are worth retaining as a heading. The Rem means that the computer ignores them. Line 20 gives the program title, and in line 40 the word used for the SAVE function is given – as a reminder only.

Defining keys

In this program certain words or strings of words are used so often, that it would be nice if they could be produced at a single key stroke. They can; the keys in the numeric keypad can be used for this purpose, and these are the numbers referred to in what follows. Line 60 is used to give new values to these keys. A chart on page 15 of appendix 3 in the manual gives the Key numbers of the keys on the pad. For Key Def, different numbers on page 16 are given.

The first one we use is 129 (for the 1 key on the pad), and the formula is: **KEY 129, "PRINT #S,"**. Notice the comma and the double apostrophes to enclose what must be printed when that key is pressed.

The next key is 138 (.), with a similar formula: **KEY 138, "CLS:LIST 1000-"+CHR$(13)**. The +CHR$(13) adds Enter at the list end. The Cls clears the screen, and LIST 1000- ensures that only the text is listed, and not the heading every time. You can alter this as you reach higher numbers, so that you only have to wait a short time for your last line to appear. Remember to add the -. If you don't it will only list the one line, and not those that follow.

KEY DEF 10,0,162 is a little more complex. In the manual page 16 of appendix 3 gives the Key number of 7 (on the pad) as 10. You can use either 0 or 1 as the second number, putting auto-repeat off or on respectively. 162 is the CHR$ number of a double apostrophe on page 8 of appendix 3. So 7, when not using the shift key, now prints a double apostrophe: " . This is needed because this program uses the shifted-2 apostrophe at the beginning and end of each program line as a signal separating off what has to be printed. It's use elsewhere leads to an error message. The computer considers this new one as a different character, and prints " . The printer accepts it as part of the text, and also prints it as " . Incidentally, the two apostrophes look different on the screen.

The final Key command in line 60 is **KEY 131, "WORDUSE1"**. This gives the word used in saving, so that typing: SAVE, then shift 2, dab key 3 (in the separate block), then shift 2, will save the program to either cassette or disk. It prevents mistakes. Remember that with disks only 8 characters are allowed, whereas with tape you can use up to 16.

```
10 REM
20 REM BASIC WORD-PROCESSING
30 REM
60 KEY 129,"PRINT #S,":KEY 138,"CLS:LIST 1000-"+CHR$(13):KEY 128,"
RUN"+CHR$(13):KEY DEF 10,0,162:KEY 131,"WORDUSE1"
70 INK 0,23:INK 1,0:BORDER 23
80 MODE 2:WINDOW 7,72,1,25
90 S=0:A=1:REM PRINT #S,CHR$(27);"U";CHR$(1):PRINT #S,CHR$(27);"1"
;CHR$(6):PRINT #S,CHR$(27);"A";CHR$(24):PRINT #S,CHR$(27);"p";CHR$
(1):REM paging to 5 (incl)
100 REM PRINT #S,CHR$(27);"C";CHR$(33):PRINT #S,CHR$(27);"N";CHR$(
7):REM Skip perforations routine to make pages.
110 REM PRINT #S,CHR$(27);"j";CHR$(255):PRINT #S,CHR$(27);"j";CHR$
(255):WIDTH 66:GOTO 400:REM Routine to position the first number c
orrectly.
120 TROFF
130 WIDTH 66:GOTO 1000
400 REM routine to print page numbers
410 FOR q=1 TO 30
420 PRINT #S,SPC(20);A:A=A+1
430 PRINT #S,STRING$(31,CHR$(10))
440 NEXT
450 STOP
900 REM To start set leading edge of paper 1/8th. inch beyond the
    ribbon edge.
1000 PRINT #S,SPC(17);"BASIC WORD-PROCESSING":PRINT #S,SPC(21);"by
 W. Simister":PRINT #S,SPC(24);"Part One":PRINT #S
1010 PRINT #S,"    The trouble with  'word-processors'  is that th
ey are written by programmers who think in a complex manner.  They
 are difficult for a writer to understand:  he is impatient to get
 on  with  his"
1020 PRINT #S,"'piece', and cannot spare enough of his mind to dea
l with the      intricate and ambiguous instructions that often acc
ompany word     processors."
```

Changing screen display

Line 70 deals with paper and ink colour on the screen. There are many arguments about the best ones to use, and you may not like my choice. They are easy to alter. In this context Ink 0 is that of paper; Ink 1 is that of the type; so altering the second letter after each Ink command will alter them to your own liking. The Border is the same as the screen, in order to avoid distraction by the border when typing; it is more like a blank sheet of paper.

The Run command scrubs variables out of memory, so every time it is used the computer goes to the first line to collect them again. If, after changing anything in lines 60 and 70, you use Run 1000 the change would not be recorded in memory. Every time you change anything like that, use Goto (any line you like).

Line 80 starts with Mode 2. If you don't like the Mode 2 lettering you can use Mode 1, but it makes the fitting of the text into its lines more difficult. Accepting this, the next command helps to make it more clear. First, however, try one experiment. In line 70 alter Border to 5 instead of 23. Use Run, and the screen now has a darker blue border. If you now list the program it will be seen to be centred between the screen side edges. The Window command does this.

Print variables

Lines 90, 100 and 110, deal mainly with printer commands and will be dealt with later, but in the beginning of line 90, before the first Rem, come two variables: S and A, for computer orders. To divert a print order to the printer the order: Print #8, must be given at the start of every program line. It would be inconvenient while writing to alter each line when it came time to use the printer, so we use Print #S, because S=0. In every order to Run, while S=0, the text goes to the screen. If S is made to equal 8, however, then every Print #S, becomes Print #8, instead of Print #0, so the text goes to the printer. When it is necessary to change from screen printing to the printer we merely change line 90 to read: S=8; changing it back to 0 afterwards.

The variable A in line 90 is simpler. It carries the page number, and is dealt with thoroughly when we come to line 420. For the present remember that when you start a following chapter the number that A equals has to be changed to correspond with the number of the first page in that chapter.

Editor's approval

When typing for an Editor's approval an inch or so of margin must show at the left hand side, and slightly more at the right. This is attended to in the printer orders that come later. To produce text that fits that position nicely we must confine our typing on the screen to 66 characters. The position I have chosen is easily changed if you do not like it, but first accept it because we must use a Window that allows exactly 66 characters. So, since Window governs left, right, top, bottom, in that order, we use these numbers: 7,72,1,25. Those numbers are inclusive, so 6 from 72 gives 66, and 0 from 25 gives 25. That is 25 lines of 66 characters for each line if you wish to produce good copy. If you do decide to use more or less characters than 66, then line 130, governing the printer width, must be altered to correspond.

Skipping the printer command lines the next computer command is line 120 Troff. If the Troff (TR off) is changed to Tron (TR on) then every Run or Goto will make the computer use the line number – in square brackets – before each program line it prints. The appearance is somewhat off-putting at first sight, but after constant use it becomes a valuable aid for correcting what had already been entered, for one is able to go directly to the line needed.

In the next part lines 400 to 440, the routine for numbering pages, will be dealt with, and a start will be made on the printer commands in lines 90, 100, and 110.



HOT TIPS

Have you special tricks and tactics with serious software and hardware? Share them with other Amstrad addicts. Send them to "Hot Tips", Amstrad Action, 4 Queen Street, Bath, BA1 1EJ. Remember the best tip each month gets £20.

Stripy backgrounds

In a recent issue there was a tip for creating stripy writing. On the same theme, here is a method for getting stripy backgrounds:

```
1 ' 6128 or expanded 664/464
10 MODE Ø ' any mode can be used
20 PAPER 2 ' try altering the paper
30 CLS:PAPER Ø
40 OUT &7FØØ,&C9
50 MODE 1 ' any mode can be used
60 OUT &7FØØ,&CØ
70 PRINT "How's this then?"
```

It is possible to work in three modes without clearing the screen. This works by swapping memory banks Ø and 1 and then changing modes. The system clears the screen memory in bank 1, but leaves the true screen alone. With this in mind, it is theoretically possible to use two modes at the same time to create some very strange loading screens.

Cormac McGaughey
County Antrim

Expansion keys

Looking back in the Basic manual I found that the definition of the Key command was not altogether clear. The syntax tells you that you can define 32 expansion keys between 128 and 159. It doesn't tell you how, and not all are listed at the back of the manual. To define any of the keys to be expansion keys, you must also use Key Def.

```
KEY DEF key number, repeat, expansion number, exp no, exp no
```

The key numbers can be found in Appendix III page 16 of the 464 User Instructions (or on top of the disk drive on 664 and 6128 machines). If you wish a key to auto repeat (that is, keep on printing characters while a key is held down) then repeat must be set to one. A zero means you must hit the key every time you wish a character printed.

An expansion number may be between 128 and 159. It appears three times after the Key Def: the first is for a normal keypress, the second for a shifted key and the third for control plus a key. The last two parameters are optional.

To define expansion keys use Key. Therefore, to re-define the Clr key to print "Hello" you would use:

```
KEY DEF 16,Ø,141 <return>
KEY 141, "HELLO" <return>
```

The 16 refers to the key number, Ø switches off auto-repeat and 141 is the expansion key.

Stephen Parkinson
London

Thank you, Stephen, for your instructive piece. £2Ø is on the way.

Monitor mates

Ever since the early issues of AA readers have been enquiring about buying a monitor on its own. Your reply has always been that you cannot buy the monitor separately . Well, I have found a retailer that does just that. Comet sell the following:

Amstrad GT 65/64 £71.95 (code 88Ø 23Ø9)
Amstrad CTM 644/Ø £165 (code 88Ø 2391)

David Marek
Edinburgh

Easier solution

Anyone having trouble trying to load patterns created under the pattern generator in *Easiart* (cassette), read on:

To load the patterns you must pick the disk option and load the patterns as a picture. To load them you must type <filename>.MON as the icon and pattern generators are supplied as separate programs.

The load function found on the pattern section (full program) will only allow you to load monochrome patterns if you press 2, otherwise <filename>.COL is what it looks for.

Stephen Parkinson
London

Leap day

I keyed in Gary Nugent's Weekday program from issue 22, put in today's date and discovered it was yesterday. To cut a long story short, just move Sunday to the end of the DATA statement in line 28Ø.

Tom McDonagh
Co Dublin

Graphics modes

For 464 users who cannot get the And, Xor, and Or graphics ink modes, try the following:

```
PRINT CHR$(23);CHR$(x)
```

where x is the required mode, Ø sets normal graphics, 1 sets XOR, 2 sets AND, 3 sets OR

Adrian Brough
New Zealand

Artistic font

Along the lines of different character sets; why not use those from *Art Studio*? The package has an excellent font editor which allows you to create your own. The fonts may then be saved. To use one of these character sets simply run this little program:

```
1Ø SYMBOL AFTER 32:h=HIMEM+1:LOAD"filename.fnt",h
```

Alex Aird
Birmingham

Eight-bit update

The 8-bit printer port in the November AA has two disadvantages: you have to switch on the cassette to enable bit 7, and it is 464 only. I have developed a similar modification that works on any Amstrad and does not affect the cassette motor.

Basically, it involves connecting pin 9 of the printer port to pin 12 of the PPI chip. Pin 9 of the printer port is the one with the thick track leading from it. The pins of the PPI (PD8255) are labelled on the circuit board at intervals of 5 pins. On a 6128 the PPI is next to where the keyboard ribbons are connected.

To set bit 7 just type OUT &F6ØØ,&2Ø. To reset it, simply enter OUT &F6ØØ,Ø. This can easily be converted to work with the program given in the November AA: change the &1Ø in line 7Ø to &2Ø.

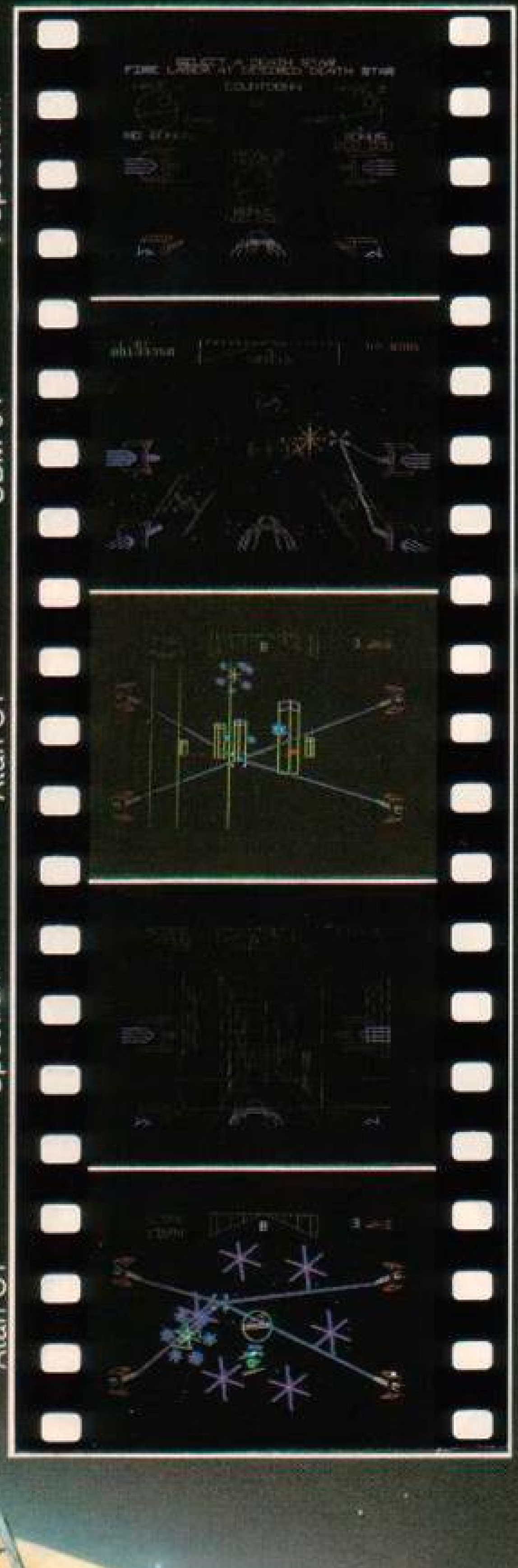
I have performed this mod myself and it works fine. Perhaps someone can write an 8-bit graphics dump routine?

For the technically minded, bit 7 is connected directly to the cassette write-data line from the PPI – the November mod had bit 7 connected to motor on which causes the cassette to switch on and off rapidly when a lot of 8-bit data is sent.

Tony Hoyle
St Annes

Note that your guarantee will be invalid if you undertake this operation. And if you're unsure of what you are doing take your machine to a specialist.

STAR



" A long time ago....

At last! The most famous coin-op Arcade Game and one of the most successful films of our era come together in this Domark publication.

Faithful to the original, the home computer version of STAR WARS® will win first place in your games collection, and be the one you go back to time after time.

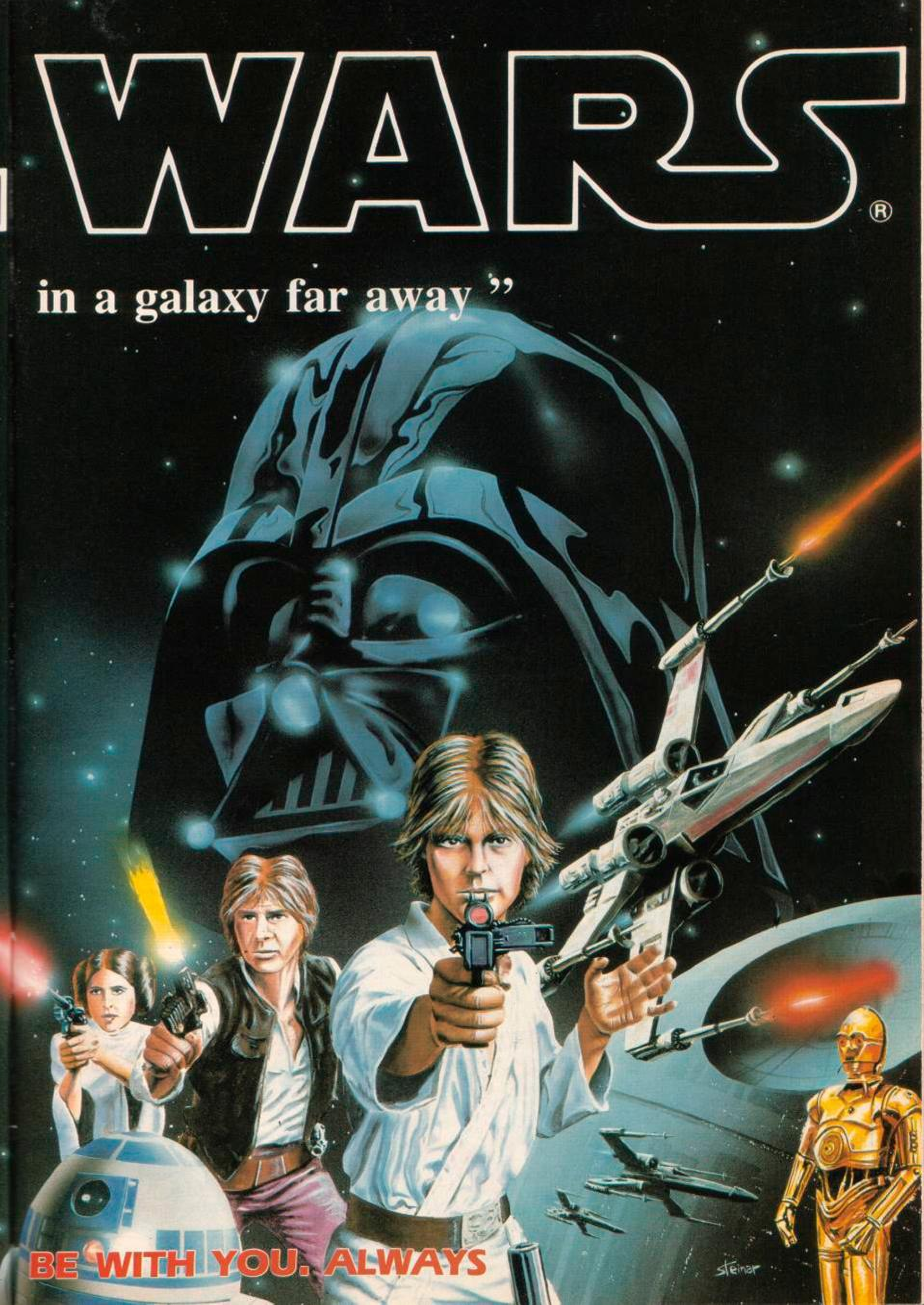
Atari ST.
CBM 64/128K
Spectrum 48/128K
Amstrad CPC
BBC 'B' MASTER
+ Electron

PUBLISHED BY
DOMARK

VEKTOR GRAFIX

ATARI GAMES

MAY THE FORCE


WARS®
in a galaxy far away ”
BE WITH YOU. ALWAYS
steiner

Gauntlet 2 + 720° x 25 = Gold

25 copies of rivetting Rave Gauntlet II and 720° to put you in a spin.



1. Who is this character?
a. a ghost b. Thor c. Barry Manilow



2. Who is this character?
a. Questor b. Gary Lineker c. Merlin



3. Who is this character?
a. a lobber b. a demon c. a grunt

We all went gaga over *Gauntlet* last year, and now the sequel looks set to be just as big a smash hit. Then there's *720*, a testing, twisting, turning, terror of a game that puts you in charge of a skateboard in the middle of Skate City.

25 lucky winners will get a copy of both games and US Gold have thrown in a sweatshirt for the first out of the hat as well. To be in the running for these fabulous prizes you simply have to identify some of the characters from *Gauntlet II*.

● Gauntlet II

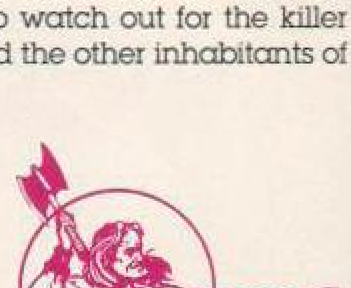
After such enormous success with the original it was always going to be hard to match, but US Gold have done it. Not only are all the familiar features there but a host of new ones as well. There are the infamous "It" and "That" monsters, evil super sorcerors, more colourful scenery, new powers and much more variation in the rooms.

If you played the original and got instantly hooked, you won't want to miss the sequel.

● 720°

Another of US Gold's arcade conversions puts you in the middle of Skate City with a desire for medals and money. Whizzing around on your skateboard you can visit the four skate parks: downhill, jump, slalom and ramp.

Perform well in each arena to get money and medals. Then you can go and buy more gear to amass yet more points with. Of course you've got to watch out for the killer bees, the ponds and the other inhabitants of Skate City.



Once you've identified the characters, write them in the correct order on the back of a postcard or stuck down envelope, along with your name and address. Send the answers to: **US Gold Comp, Amstrad Action, 4 Queen Street, Bath BA1 1EJ**. The entries should reach us by **January the 15th**, when the 25 winners with the correct answers will be drawn from the hat.

WORDS WORK

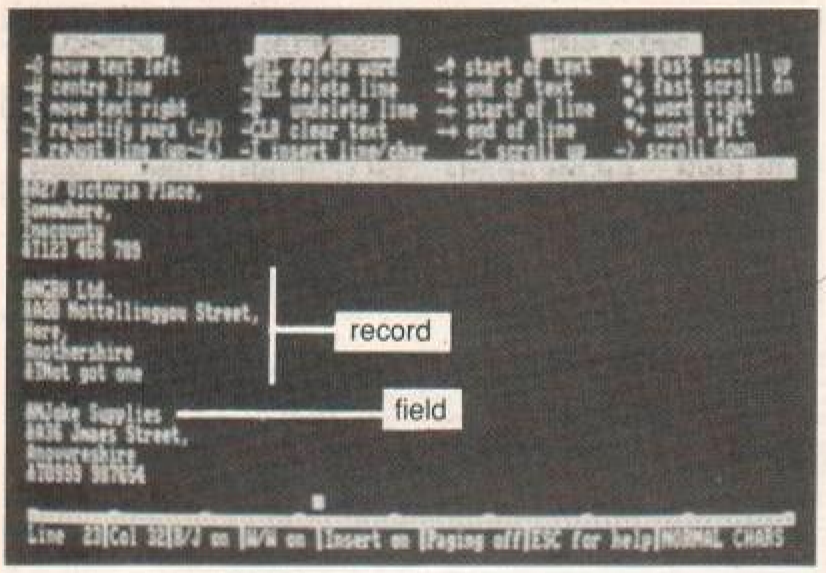
How to get the most from your word-processor and printer

Data Merge

Tasword 6128 includes a handy data merge facility. Basically, this lets you produce multiple copies of a letter each addressed to a different person, or even a press release addressed to various businesses. The addresses being held in a data merge file.

It is possible to create your own specific data merge file using *Tasword*. Or, if you have *Masterfile*, use its data export facility. Conditional printing is acceptable which means you could print letters addressed only to Smith or, say, to customers that have done business with you in the past month – a powerful feature which allows printing to be turned on or off depending on certain pre-defined conditions.

The most important character is &, the data merge control character. It tells *Tasword* where merged data is to be printed. A basic knowledge of files, fields and records is needed to get the best out of the data merge facility.



• A sample data merge file

Multiple file printing

Due to the relatively limited memory of the CPC machines, it is impossible to create very large text files. *Tasword 6128*, which uses the second bank of memory, can store a reasonable 65k (roughly equivalent to five and a half solid A4 pages). But even that isn't enough to store, say, a chapter of a book or a thesis.

If you need extremely large documents then it is best to store the lot in several medium sized files; later these can be loaded and printed in turn. To makes things simpler, however, there is a special file that can be created which automates this process: a must be produced that consists of all the names of the files you wish to print – and in the correct order you wish them printed. For example,

```
$
file1.txt
file2.txt
file3.txt
b:file4.txt
```

The dollar sign tells *Tasword* that the file shouldn't be printed, but interpreted instead. The filenames must start at the beginning of a new line and may, optionally, be prefixed by a drive letter. Before printing starts, *Tasword* will check to see that all the files exist.

```
&N
&A

Dear &N,

This letter shows what happens when you use data merge control
characters within text.

Yours,

AN Other
```

File – comparable to an indexed telephone and address book.
Record – a complete set of data. Telephone number, address and name for example.
Field – an individual item of data such as a telephone number

Field identifier

Each field in a data merge file is prefixed with the & control character plus a letter identifying the field. For example, each name could be preceded by &N and addresses with &A. Of course, you could use any identifier between A and Z, and a and z. This indicates that each record could consist of over 50 fields, but in practise eight or less is usually sufficient. There is no reason why you shouldn't keep track of files on a disk, record collections or even football results rather than addresses.

Imagine you have a mail merge letter similar to that below; the first letter printed will have the name and address of the person at the top of your data merge file. Each subsequent letter printed will have the particulars of a person lower down in the file.

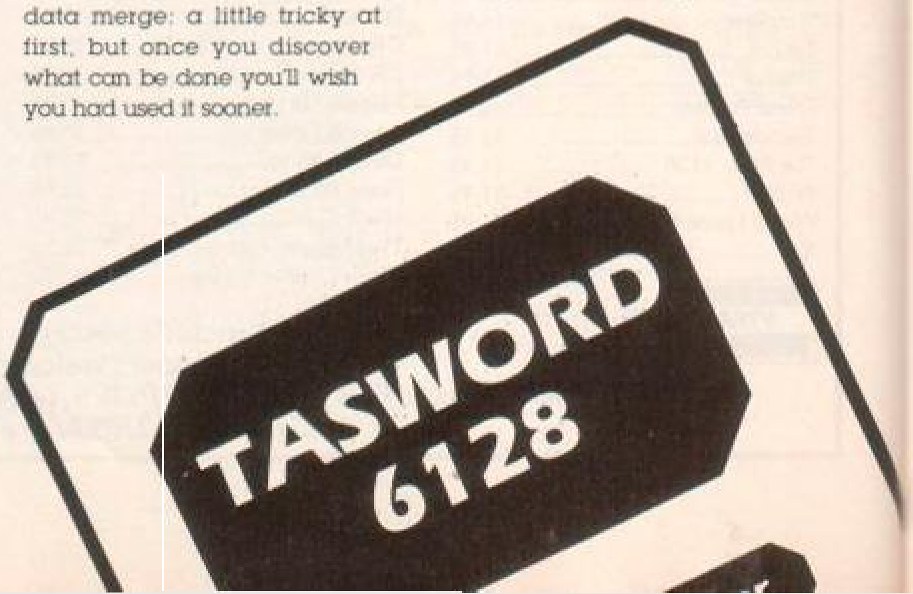
You can insert prompt commands within a data merge file. Simply use &"prompt" anywhere in the file and, during printing, the message between the quotes will appear. Printing will cease until you enter a character, word or sentence. Its use may not be immediately obvious, but it could be handy for entering the odd date or phone number – in fact, anything.

Conditional printing

Tasword recognises two data merge control characters as a conditional printing command (&&T=23). Conditional printing is a very powerful option to have as it lets you turn the printer on or off when a particular condition is met. Using this function with the allowed logic:

= equal to
> greater than
< less than
<> not equal to

gives you extraordinary printing options. You could decide to print all entries except Smith, or print entries aged above 34, or even those with over £1,000 in their current account. It's your choice. Experiment with data merge: a little tricky at first, but once you discover what can be done you'll wish you had used it sooner.



Ways with Words

Do you have favourite tricks for getting the best out of your word-processor? Or do you have seemingly insurmountable problems? Share them with other Amstrad addicts. Send them in to: **Words Work, Amstrad Action, 4 Queen Street, Bath, BA1 1EJ.**

Changes, changes

I found G Plain's *Tasword* Reformatter program quite excellent. However, I have modified it in two respects. First so that a second disc-drive is catered for; and secondly to allow the user to swap disks until the correct disk is found. The altered and additional lines are as follows:-

```
40 PRINT "Insert disk with Tasword file into drive A or B
   then press A or B"
45 d=UPPER$(INKEY$):IF d<>"A" AND d<>"B" THEN 45
47 IF d="A" THEN |A ELSE |B
50 PRINT:CAT:PRINT
52 PRINT"Is the source file on this disc (y/n) ?"
54 d=UPPER$(INKEY$):IF d<>"Y" AND d<>"N" THEN 54
56 IF d="N" THEN PRINT:GOTO 40
58 PRINT:INPUT "Name of source file ", oldfile$
```

This modification makes the program much more user-friendly.

Gerald England
Ashton-under-Lyme

Printer plea

Your help please, before I go completely insane. I have a CPC 6128 and use *Tasword 6128* with a centronics GLP printer (not a MKII). Can you tell me how to configure *Tasword* in order to be able to print a pound (£) sign instead of a hash (#)? So far I have not found any codes to do this.

Would any other word processor make life easier or even another printer? If so, any recommendations?

Mr H Goddard
Waltham

Unfortunately we don't have a GLP printer or manual in the office and therefore can't help you. However, if anyone has such a printer please write in.

Erratum

Thank you for publishing my *Easi-Amsword* modification listing in the pages of Amstrad Action. One little correction; line 3 should read:

```
3 LOAD "EASIAMS3", h-&D1
```

providing the binary file has been transferred using the filename EASIAMS3.BIN.

The original three file names are AMSWORD-LOADER, EASI-AMSWORD and CASROUTINE; the latter being the binary file. If readers are having problems with transferring the binary file, the following listing should do the trick.

```
10 H=HIMEN
20 |TAPE
30 MEMORY &2000, &D2
40 LOAD "CASROUTINE.BIN"
50 |DISC
60 SAVE "EASIAMS3.BIN",b,&2000,&D2
```

I hope this will be of help.

Tony Turner
Hazelmere

Space saver

It recently dawned on me that I was wasting a lot of valuable memory when using *Protext* – especially when I wanted to print a sentence or two – until, that is, I discovered the powerful stored commands. I found a way to save memory, as follows:

```
>pa
>ls 26
```

This enables me to print a line in the centre of a page without wasting memory on spaces.

```
>ls 1
>pa
```

>pa is very useful too. It simply starts a new page.

Tan Cher Soon
Singapore

Dual disk-driving

Below is a description, including a short listing, of a tip for *Tasword 6128* when using two disk drives. It allows automatic definition of the function-keys according to the specific word processing job being undertaken, without requiring several differently customised versions of *Tasword*.

Automatic function-key definitions for *Tasword 6128* won't run from drive B, so if you have two disk drives and you want several different versions of *Tasword* customised for different purposes – such as one for letters – another for reports and another for articles, you will need each to run from drive A while your text disks go in Drive B.

This is rather wasteful of disk space, but you can improve matters by having a profiling program on the text disk in Drive B – similar in operation to PROFILE.SUB used in CPM Plus. You will then need only one version of *Tasword*, customised as follows.

After running *Tasword*, press Control and Enter to get the menu and choose the B option to enter Basic. List the program and enter these lines:

```
1 ON ERROR GOTO 180
2 CHAIN MERGE "B:TASFK.BAS", 10
3 CLOSEIN ON ERROR GOTO 0
180 IF ERR=32 AND ERL=2 THEN IF DERR=146 THEN RESUME 3
190 ON ERROR GOTO 0
```

Type RUN and when *Tasword* has loaded, press Control and Enter to get the menu again, but this time choose the T option to save your new version of *Tasword*. You will need to swap disks in Drive A when prompted.

When you run the new version it will automatically look on Drive B for a file called TASFK.BAS. If there is no such file this fact will be ignored. If, however, the file is found it will be merged into the basic part of *Tasword*.

The file TASFK.BAS should consist of Basic lines 20 to 110, containing function-key definitions, such as:

```
20 KEY 0, CH$(13)+CHR$(13)+"Yours sincerely,"+
   STRING$(6,13)+"Paul S Jenkins"+CHR$(13)
30  KEY 1,"1"
40  KEY 2,"2"
50  KEY 3,"3"
60  KEY 4,"4"
70  Key 5,"5"
80  KEY 6,"6"
90  KEY 7,"7"
100 KEY 8,"8"
110 KEY 9,"9"
```



This short Basic program is then saved on to the text disk used for correspondence. A different set of function-key definitions could be saved on to the disk used for reports and yet another set for articles. The programs must be saved with the name "TASFK.BAS".

You can set the function keys to produce any sequence of characters, even printer control codes and 2nd character-set codes. The codes needed can be found in the README file on the *Tasword* master disk.

Paul S Jenkins
Portsmouth

A GRAPHICS BONANZA

CPC 464 DISC VERSION NOW AVAILABLE

AND TWELVE GOOD REASONS FOR BUYING IT:

1 A TOP GRAPHICS PROGRAM
At the heart of the package is Parrotry Plus our highly regarded DYNAMIC GRAPHICS program, deservedly popular with beginners and experienced users alike. Parrotry Plus can be considered the word processor of graphics with it's ability to manipulate and merge designs in so many ways.

2 VERSATILITY
The package is being used for many varied purposes including CAD, video titling, presentation & information displays, animation, creating graphics and supplying co-ordinates for other software, scaled outline drawings for detailed enhancement by screen design programs and just purely for pleasure.

3 EASY TO USE
The package is very easy and quick to use and you don't need to be a great artist to achieve results - the dynamic graphics almost guarantee that any design will look good when displayed.

4 REFRESHINGLY DIFFERENT
The package offers many exciting new possibilities and challenges for artists and designers, with end products far more satisfying than fuzzy, distorted printer dumps.

5 THE LIBRARY
Every package includes our Library disc of ready drawn large characters for merging into designs to save hours of work, a useful selection of maps and a set of test and demonstration drawings for plotters.

6 FREE TRACING KIT
Supplied with every package - professional artists use it all the time! The best value drawing aid available!

7 PLOTTER UTILITY NEW
Drives most makes of plotter superbly with glorious colour, text and full scaling options. Plotted drawings are far, far superior to those produced by matrix printers and plotters need not be expensive. Ideal for when quality drawings are required, for overhead slides and, for ladies, you can even plot embroidery designs direct onto the cloth! (The graphics in this ad were created using Parrotry Plus and a plotter).

8 FREE ABC PROGRAM WORTH £12.95 NEW
A new children's ABC program which draws a delightful animated picture for every letter of the alphabet. A great demonstration of the varied animation achievable with Parrotry Plus - even if you're a little old for it!

9 DEMONSTRATIONS
In total, over 60 varied demonstrations are supplied within the package, making it almost worth buying for these alone!

10 ECONOMICAL WITH DISC SPACE
The graphics files created are only 4k long on average and can often be as little as 1k.

11 SUPPORT
Treasure Island Software, by not being profligate, is very soundly based financially and will be around to support it's products for many years to come.

12 VALUE FOR MONEY
3 DISC GRAPHICS BONANZA OFFER ONLY £26.90. (£1 extra Europe, £2 Rest of World please). For all CPCs. Orders sent by return.
Free ABC offer until 29.2.88.

Treasure Island Software, 14 Arthur St., Ampthill, Beds. MK45 2QQ. 0525 405621

VISA

* * * SPEEDTRANS PLUS * * *

AMSTRAD CPC6128 (or 464/664 with DK Tronics additional Memory)

THE BEST TRANSFER UTILITY FOR SPEEDLOCK PROTECTED PROGRAMS FROM THE LEADERS IN TAPE-TO DISC TECHNOLOGY
will transfer more Speedlock protected programs to disc than any of its competitors and transfers all the programs we say it will

These are some of the features:

- * PLUS * TOTALLY AUTOMATIC TAPE-TO-DISC UTILITY — JUST ONE KEYPRESS
- * PLUS * ONLY ONE PROGRAM TO RUN WHICH FINDS THE SPEEDLOCK TYPE AUTOMATICALLY
- * PLUS * PROGRAM TRANSFERS ORIGINAL AND MANY LATER SPEEDLOCK PROGRAMS
- * PLUS * NO FIDDLING/MEDDLING, WRITTEN WITH THE AMATEUR IN MIND
- * PLUS * AUTOMATIC DISC FILENAMES
- * PLUS * NO WASTED DISC SPACE — SAVES THE CORRECT AMOUNT OF GAME CODE
- * PLUS * SAVES 99% OF OPENING SCREENS AND IN THEIR CORRECT COLOURS
- * PLUS * COMPRESSES SCREEN CODE TO SAVE EVEN MORE DISC SPACE
- * PLUS * FASTER LOADING TIMES FROM DISC BECAUSE OF SHORTER LENGTHS

SOME OF THE PROGRAMS SPEEDTRANS PLUS WILL TRANSFER
* Acrojet * Arkanoid * Armageddon Man * Army Moves * Brian Clough's Football Fortunes * BMX Simulator * Barry McGuigan's Boxing * Beach Head * Bounty Bob Strikes Back * Brain Ache * Bruce Lee * Chrystal Castles * Cluedo * Daly Thompson's Decathlon * Daly Thompson's Super test * Dambusters * Desert Fox * Dizzy * Express Raider * F15 Strike Eagle * Fighter Pilot * Frankie Goes To Hollywood * Game Over * Ghostbusters * Goonies * Grand Prix Simulator * Green Beret * Gunfright * Gyroscope * Hacker * Head Over Heels * Hunchback II * Hypersports * I Spy * impossible mission * Its A Knockout * Jet Set Willy * Knight Rider * Konami Golf * Kong Strikes Back * Kung Fu Master * Leaderboard * Leaderboard Tournament * Legend of Kage * Mag Max * Mario Bros * Match Point * Matchday * Metrocross * Mikie * Mindshadow * Mission Jupiter * Monopoly * Nemesis The Warlock * Nomad * Ping Pong * Pro Ski Simulator * Pulsator * Raid * Rambo First Blood II * Rescue on Fracalus * Road Runner (Main Program) * Sabre Wulf * Samantha Fox Strip Poker * Saracen * Scrabble * Short Circuit * Silent Service * Space Shuttle * Spy Trek * Tenth Frame * The Great escape * The Way of the Exploding Fist * Topgun * Transmuter * Vampire * Winter Games * World Games (Main Program) * World Series Baseball * Xevious * Yie Ar Kung Fu * Zoids (Martech) * Zorro *

DONT WASTE YOUR MONEY ON OTHER INFERIOR PRODUCTS — BUY SPEEDTRANS PLUS

WITHOUT DOUBT THE BEST SPEEDLOCK TRANSFER UTILITY ON THE MARKET PROGRAMMED BY GOLDMARK SYSTEMS THE EXPERTS AND LEADERS IN TAPE-TO-DISC UTILITIES AND ROUTINES

DISC ONLY £12.99 (UK) EUROPE ADD £1.25. REST OF WORLD ADD £2.00

CHARACTER DESIGNER (Disc) — 11.99
Redefines printer download character set (Epson compatibles) for Cyrillic/Arabic fonts and special/scientific characters etc. Redefines Screen fonts and Keyboard keys

SAMSON TAPE-TO-DISC UTILITY — Disc 11.99 Tape £7.50
The best Tape-To-Disc utility on the market. It will transfer more programs and does so faster than any other. Numerous features including NEW "SPLIT" option

SPEEDTRANS v1.43 (Cassette) all CPC's — 6.50
Transfers approx. 40 SPEEDLOCK titles automatically to disc including screens (send for list)

FIRETRANS (Cassette) — 5.00
Transfers a number of Firebird games automatically to disc iincluding screens (send for list)

LORD OF THE RINGS Conversion Cassette — 4.50
Side 1 transfer all game parts to disc. Side 2 reduces tape loading time to 3 minutes

VIEWTEXT (Cassette) Special offer while stocks last — 2.00
See the text in binary files — find passwords etc — finish that difficult game)

TRANSIT (Cassette) — 4.50
Disc to Disc file copier. Any drive combination. Easy to use.

Q-CLONE (cassette) — 4.50
Whole Disc copier (Amstrad formats). Any drive combination. Easy to use

MASTERFILE/MASTERCALC ROM UPGRADE — 17.25
Masterfile/Mastercalc 464/6128 (NOT Masterfile III). Send original software (approved by John Campbelll)

MICROTEXT ADAPTOR ROM UPGRADE — 17.25
Approved by MICROTEXT. Makes program 100% easier to use

DMP 2000/3000 BUFFER UPGRADE — 6.50
Increase the buffer from 2k to 8k with this simple to fit, fully documented kit

DMP 2000/3000 RIBBON — 5.25

BRITANNIA SUPER ROM-PLUS BOARD — 39.00

ROMBO ROM BOARD — 31.00
8-socket ROM board with special disc drive adaptor for 464 owners

PHASOR ONE JOYSTICK — 11.50
Hand-held pistol grip joystick with positive microswitches

TAPE TO DISC SERVICE — 3.50
Send us your tape and a disc together with £3.50. Return of post service

EPROM SERVICE (Price includes EPROM) — 17.25
We will put your program on ROM (subject to copyright)

TAPE TO DISC ROUTINES (Listings) — each £1.25
We have 100's of routines to convert tape games/programs to disc. Send for list

THE GOLDMARK BOOK — 6.00
Over 100 tape to disc routines to use with SAMSON/Transmat

SPECIAL CHRISTMAS OFFER
Purchase either Samson on disc or Utilities Disc Number One and receive the Goldmark Book absolutely FREE!

The above are UK prices. Europe please add £1.25 per item. Rest of world add £2.00 per item

Please send your cheque (£ Sterling) Eurocheque OR UK P.O. to
GOLDMARK SYSTEMS, 51 COMET ROAD, HATFIELD, HERTFORDSHIRE, AL10 0SY, ENGLAND
Please write or telephone 07072 71529 for further information.

ACTION TEST

The Christmas boom is upon us and as everyone dives feverishly for their wallets the software houses wait anxiously to see how their products fare.

Here at AA we don't think there's much doubt about the two best products around – *Driller* and *Gauntlet II*. *Driller* is the blockbuster from Incentive, programmed using the Freescape technique. This allows the creation of 3D landscapes featuring solid, colour objects which you can move around, under, over and into. An incredibly realistic development and a magnificent game.

***Gauntlet* got masses of praise last Christmas, and now the sequel arrives to a similar response. It has been considerably improved with new features like the "it" monster, more detailed graphics and many more enemies.**

There are many other games to delight and amuse you this Yuletide, and you won't find better coverage than right here. Merry Christmas and a happy new gamesplaying year!

WESTERN GAMES

Magic Bytes/Ariolasoft, £9.99 cass, £14.99 disk, joystick or keys

AA RAVE

Enough of all those sporting simulations, lets get down to the serious competitive events of arm-wrestling, beer-shooting, quid-spitting, dancing, milking and eating. The program is a multi-load with one event in each part. You can either play against the computer or another player.

Arm wrestling is first on the list and the screen is split into two parts. The bottom shows



Watch out that your opponent doesn't cheat

a picture of you and your opponent sitting on either side of a table surrounded by a crowd of cowboys. The top of the screen shows three arms, one is yours, one is your opponents and the middle one is used to increase strength. The central arm continuously moves in a pumping action and you try to pull back on the joystick when the arm is in the vertical position. The winner of the bout is the one who forces his opponents arm down into the candle flame.

A point is scored every time you win a bout and the winner of the contest is the first to score three points. You then progress to the next opponent and continue until you lose a contest. Money is won each time you win a contest and this is added to your score for all six events. The higher the level of the opponent, the more chance that he will cheat by putting his hand on the table. You can also cheat, but make sure that the sleepy headed judge doesn't see you.

Beer shooting is next and in this you must shoot five progressively smaller glasses of beer out of the hands of a village idiot. Five glasses may sound simple, but the problem is that you must shoot five in a row, because if your opponent hits a glass then you have to start all over again. It's no mean feat to shoot five in a row and you may get frustrated with this stage.

SECOND OPINION

An excellent sporting spoof that proves very enjoyable. The graphics are exceptionally good and although the gameplay is limited for each event they are tough enough to keep you trying. My personal favourite is the beer shooting which seems to have the right blend of marvellous animation and addictive action. **BW**

GREEN SCREEN VIEW

No problems in green as you play cowboy.

Quid-spitting allows you to take up the bad habit of chewing tobacco and spitting into your opponents spittoon. The winner is the first person to get the required number of hits in the spittoon. Spitting is not as easy as you may think because you have to bite the tobacco, chew it, aim it and then let fly with a moulhful.

In dancing you try to do the can-can after a little tuition from a dancing girl. You and your opponent then go up on stage and mimic exactly what the girl did. If you succeed in the dance then you continue on with more and more complicated dances, but if you miss the beat the crowd get rowdier. Eventually they will hit the pianist on the head and he refuses to play again until the person who missed the beat buys him a beer.

If milking a cow is as difficult in real life as it is in this game then I'll stick to going down the shop for a pint. To get milk out of a cow you have to follow a sequence of joystick movements and keep pace with the fluctuations in the cows udder.

Finally there is the eating contest in



which you compete against an opponent in a race to empty a bowl of stew. The food has to be spooned into your mouth and then chewed before you swallow. If you chew too much then you will swallow a lot of air and as a consequence you end up belching, which slows you down. Drinking in between mouthfuls helps in swallowing.

Tunes occur in some of the events and spot effects appear throughout the game. The graphics are large, detailed and colourful. Each of the events has attractive graphics which are well animated.

Sporting simulations have been around for a long time and this is probably one of the least serious attempts. Mastering all six events will take you a long time and you may come back to this later for a quick waggle. **GBH**

FIRST DAY TARGET SCORE
$1,000

The Verdict

GRAPHICS 92%
- Attractive graphics on every level.
- Well animated with a touch of humour.

SONICS 67%
- Great spot effects.
- Not many tunes.

GRAB FACTOR 77%
- Great fun watching the expressions change of all the characters on screen.
- Being able to cheat against your opponent makes it more fun.

STAYING POWER 78%
- A simple game to play, that will take a long time to master.
- Tends to get repetitive.

AA RATING 76%
- Good old fashioned waggling with a little more added.

DRILLER

Incentive, £14.95 cass, £17.95 disk, joystick with keys or keys

Incentive have spent over a year and a lot of money developing a programming technique called "Freescape". This is the first game to use the technique, which allows the creation of solid 3D landscapes which you can move around and into, just as you would in the real world. It's a mightily impressive creation that packs more into an eight bit micro than was ever thought possible, but have they produced an equally magnificent game?

The packaging for the game is as comprehensive as that of *Elite*, including a novella giving the background story. The story is rather long but isn't essential if you don't want to read it. Mitral and Tricuspid are moons of the planet Evath. Mitral has been mined by a technologically backward group of outcasts called the Ketars. As a result a vast amount of gas has built up beneath the surface of the moon. If Mitral were to explode then Evath would be blasted out of orbit. In order to save Evath the gas must be released from Mitral by tapping it off with drilling rigs.



The screen display is split into two main areas, the view through the window of your craft and the control panel. The control panel shows you which sector you are in and whether or not it has been cleared of gas. It also shows the status of your shields and energy. Other instruments indicate the position and orientation of the craft.

Mitral is made up of 18 sectors and each of these must be cleared of gas by placing a rig over the main gas pocket. Finding the position of the rig is easy with the first sector since it is marked with a large black cross. The remaining 17 are more difficult but there are puzzles to solve in each that should lead you to the correct location. You only need to tap off 50% of the gas to make a sector safe, but you get a better score if you tap off more.

The rigs are kept on Evath and are teleported down to Mitral when you send for one. They can be re-called if the position of the rig is not good enough, but sending for a rig or sending it back costs you valuable energy. This effectively prevents the trial and error method of finding the gas pocket. Energy crystals can be found to replenish your ship.

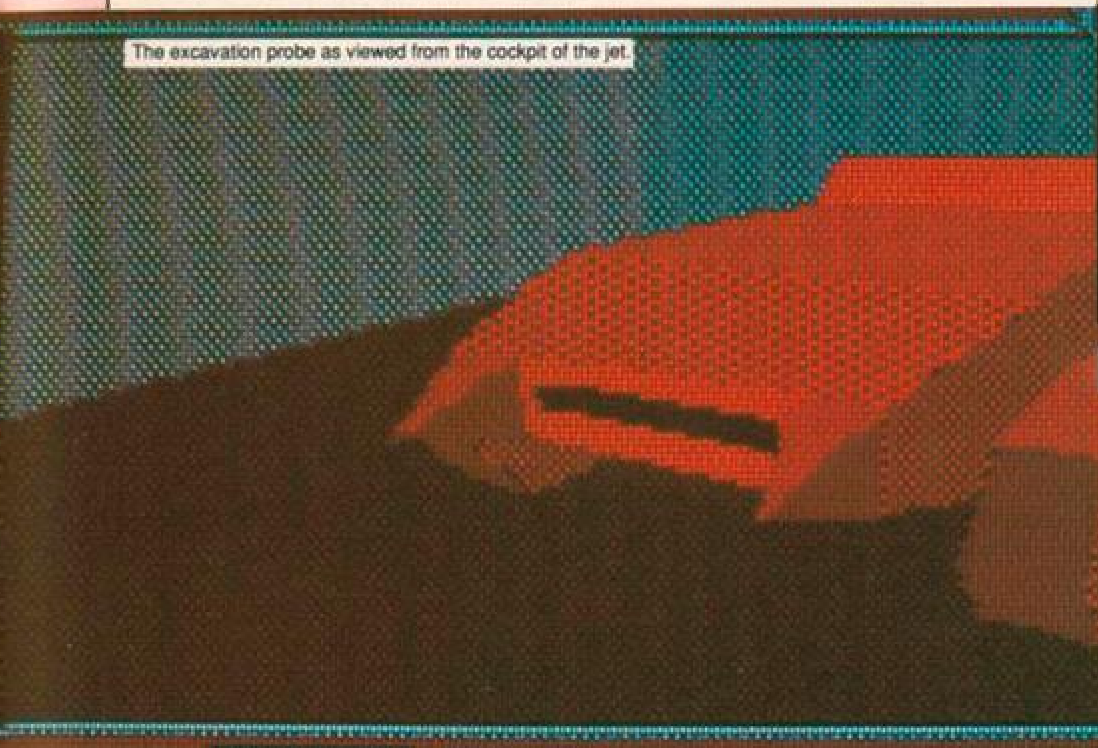
Your craft has shields which are depleted when you're shot by the automatic defences. Shields can be regenerated by another type of crystal. If your shields are destroyed or you run



One sector is cleared of gas by the positioning of a rig.



A trench lies far below you as you begin your dive.



The excavation probe as viewed from the cockpit of the jet.

Levelled out you can see under the bridge.



MASTER GAME

out of energy then you will die. Falling too far will also destroy you.

In most sectors there are objects that you can use to overcome hazards. Obsidian has a crevasse which will end the game for you if you fall in it. A bridge can be created with the use of a nearby object and you can then cross the crevasse. Another example is that in Amethyst there is a secret exit which you can open and close to allow access to other parts of the moon.

The automatic defences must be dealt with in different ways. Some can be shot to destroy them and others must be turned around or crushed with parts of the scenery. You'll have to do a lot of experimenting to discover the secrets of each area, and there's a large degree of puzzling involved locating the drilling sites.

The excavation probe can be exchanged for a reconnaissance jet by docking with it in a hangar in the Aquamarine sector. Once inside the jet you can fly around Mitral and have a birds eye view of it. Some areas are easier to get to in the jet because you can fly over hazards. Drilling rigs can't be sent for when you are in the jet, so you must return to the hangar to enter the probe again when you want to release the gas.

I doubt that this will be the last game to feature Freescape because of all the development that went into it. The technique is fast considering the amount of memory that is being moved on screen at any one time. Colour is used well to give shading and make the outline of objects easily distinguishable. Sound is not the major feature of this game since most of the work has been put into the graphics, but it is adequate. You can congratulate Steve Webb from Cardiff for what effects there are, because he was the winner of our competition to provide sound effects for the game.

Mitral is a big place and tapping off the gas in all 18 sectors within the time limit will keep you occupied for a very long time. The problems are devious and often interconnected. The game is expensive but it does come with a novella and 3D mapping model. This is a unique feature because the map is a 3D structure itself, which you have to fill in as you go along.

GBH

SECOND OPINION

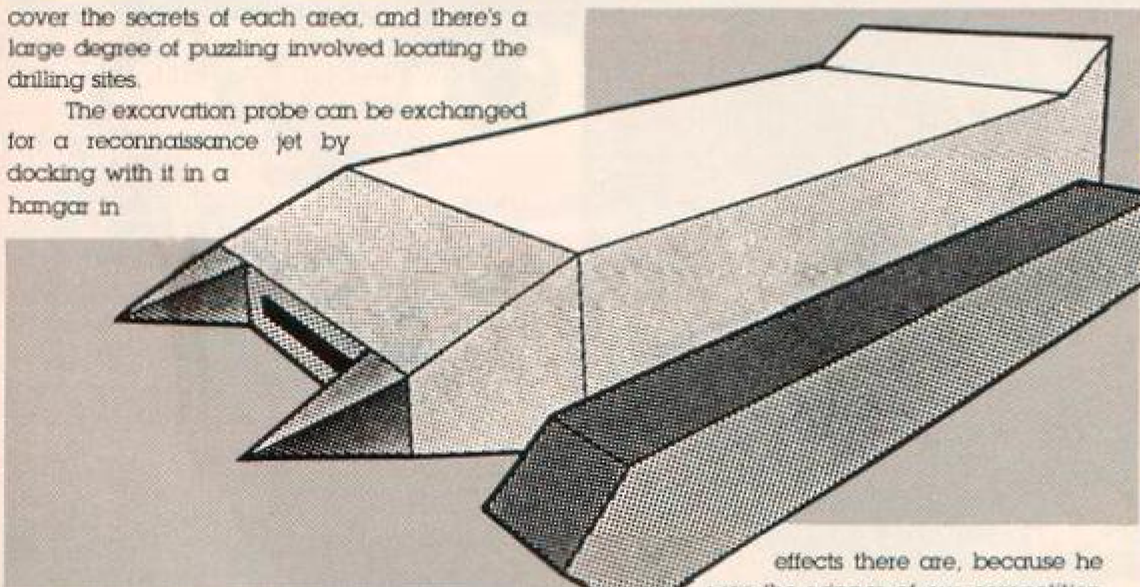
It's difficult to fully appreciate a game of this originality and quality just from a review and screenshots. The sequence of screen shots gives an idea of the real environment you can move in. Being able to move under, over, around and into solid 3D objects is a revelation in itself. When it's combined with good use of colour, wicked puzzles and a beautifully thought out game, it's a work of genius. This is the game you have to have this Christmas, even at the unpleasantly high price. I hope they manage to keep the variety going with future games using Freescape. **BW**

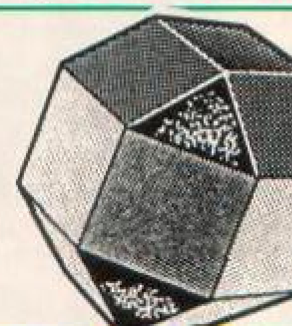
GREEN SCREEN VIEW

Mitral is as easy to explore in green as it is in colour.



Inside the stores you can see pyramids which replenish your shields when shot.





FIRST DAY TARGET SCORE

Clear five sectors of gas.

The Verdict

GRAPHICS 94%

- ☐ The landscape can be viewed from all possible angles.
- ☐ Superb use of shading and colour.

SONICS 45%

- ☐ Spot effects by Steve Webb.
- ■ No memory left for music.

GRAB FACTOR 92%

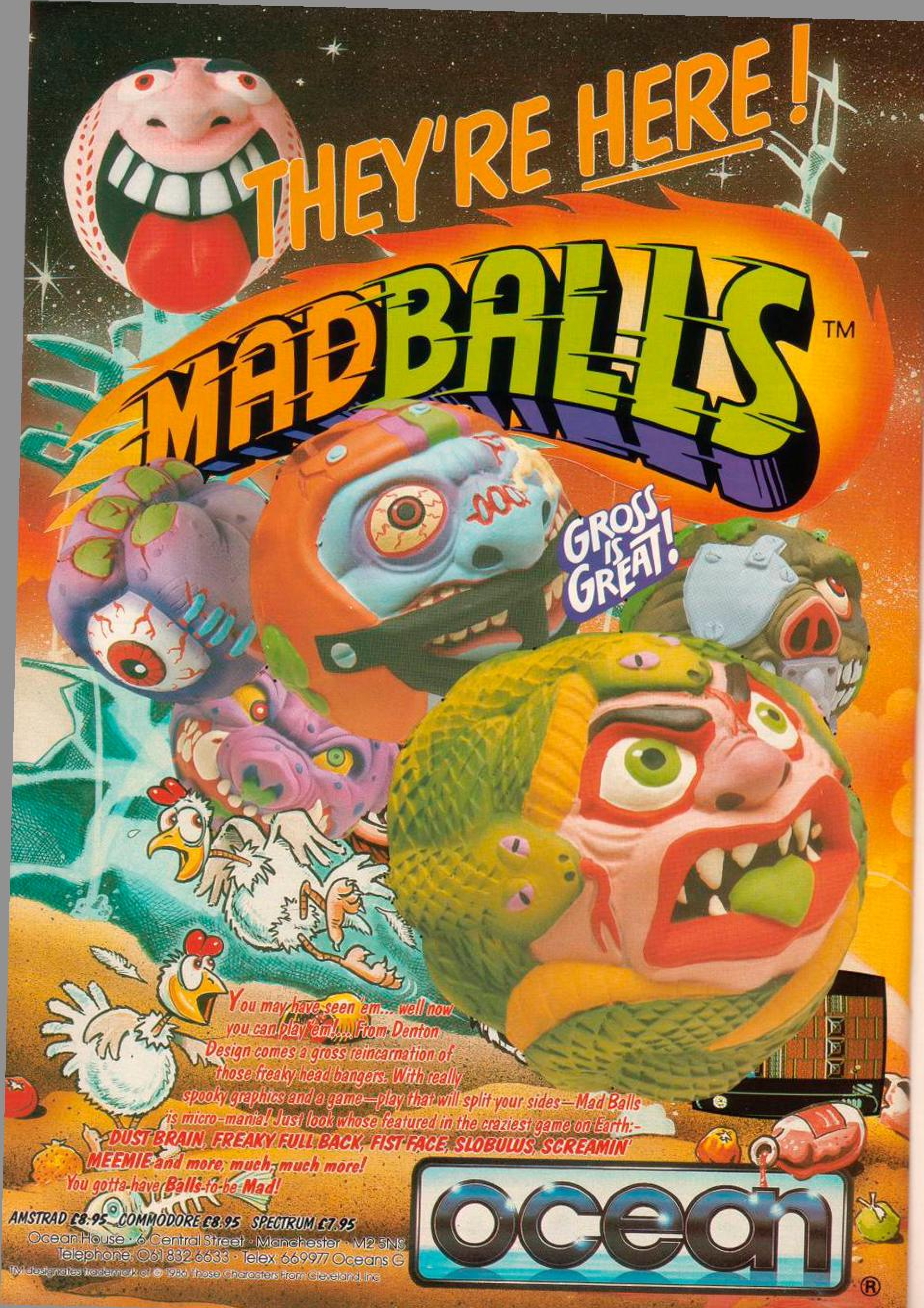
- ☐ Exploration of Mitral from all angles helps to solve the problems.
- ☐ Lots of variation in ways to solve the problems.

STAYING POWER 97%

- ☐ With 18 sectors to make safe you will be playing for a long time.
- ☐ The puzzles can be complex and difficult to crack.

AA RATING 96%

- ☐ Original and innovative gameplay that deserves financial and critical success.


THEY'RE HERE!
MAD BALLS™
GROSS IS GREAT!
You may have seen 'em... well now you can play 'em!... From Denton Design comes a gross reincarnation of those freaky head bangers. With really spooky graphics and a game—play that will split your sides—Mad Balls is micro-mania! Just look whose featured in the craziest game on Earth:-
DUST BRAIN, FREAKY FULL BACK, FIST FACE, SLOBULUS, SCREAMIN' MEEMIE and more, much, much more!
You gotta have Balls to be Mad!
AMSTRAD £8.95 COMMODORE £8.95 SPECTRUM £7.95
Ocean House · 6 Central Street · Manchester · M2 5NS
Telephone: 061 832 6633 · Telex: 669977 Oceans G
TM designates trademark of © 1986 Those Characters From Cleveland, Inc.
ocean ®

720

US Gold, £9.99 cass, £14.99 disk, joystick or keys

The micro version of the arcade hit 720 has at last hit the screens of the humble Arnold. In case you've never seen it, the game is based on a skateboarder skating around a small town called Skate City.

Your feet never leave the skateboard except when you push forward, or fall off. The point of the game is to skate around Skate City visiting the four skateboard shops and the four skateboard parks. Each shop sells a different item ranging from helmets, shoes, skateboards and pads. When you go near a shop, an icon on the screen will flash alternately with the price that the shop is charging for it. If you want it, you simply skate into the shop. If you have enough money to pay for it, a "Sale" message will be shown on the screen. If you don't have enough, a "No Sale" message appears.

SECOND OPINION

To start with the game seems terribly easy and you wonder what there is to get excited about. Then, as you run out of park tickets, it gets extraordinarily difficult. This is disappointing and takes the edge off an otherwise enjoyable game. The challenge may keep you going and once you've got extra equipment it can be quite interesting. **BW**

GREEN SCREEN VIEW

Some objects become tricky to see.



Skating on water?

You accumulate your wealth in two ways. The first and easiest is by skating over the dollar bills which some careless Skate Citiers have left drifting around. The second method is to get a medal at one of four skateboard parks because a cash prize goes with it.

The four skateboard parks are: Downhill, Jump, Ramp and Slalom. At the Downhill park, you simply skate downhill. The better you do, the higher a medal you get from Bronze, Silver and Gold. The Jump park is a hazardous place where you must skate and jump over ledges. If you land on the red circle, you will get a better score. The Ramp park has a half pipe in which you skate up and down the sides doing tricks on the wall ledges. The Slalom park, as the name suggests, consists of flags which you must skate between.

Extra points can be gained from skating over hidden locations. And from doing tricks. You do this by jumping in the air and twisting the skateboard whilst airborne. The better the equipment you buy, the better the tricks you can do, the faster you can go, and the higher you can jump. If you take too long in getting to a skateboard park, killer bees will chase you. If you still tarry, the bees will become more menacing and will take away one of three lives.

I liked this game, but not at first. The skateboard is easy to control and it is fun to do tricks. The Ramp park baffled me, but see how you get on. The colours are very drab, but the animation is fair. The movement is quick, and the gameplay difficult. **CJB**

FIRST DAY TARGET SCORE
13,000

The Verdict

GRAPHICS **61%**
- ☐ Easy movement and good animation.
- ■ Drab colours.

SONICS **29%**
- ■ I didn't like the music.

GRAB FACTOR **63%**
- ☐ Easy to get into.
- ■ Takes a while to find out what to do at the parks.

STAYING POWER **71%**
- ☐ So many different things to do.
- ■ Hard to get into a fifth park.

AA RATING **69%**
- ☐ Not a brilliant conversion but nice to play.

SARACEN

Americana, £2.99 cass, joystick or keys

Holy Crusades were the sort of thing that Richard the Lionheart really enjoyed. Going around the Holy land hacking up the Saracens was a popular medieval pastime and now you can join in the fun.

Armed with a bow you set off to kill the Saracen Chiefs who live in mazes. There are many hazards littered about the mazes and these include soldiers, bombs and cannon balls. Stone walls, wooden walls, magic doors, locked doors and one way doors block off passages through the maze. Stone walls are indestructible, wooden walls can be shot, magic doors and locked doors can be opened, and one way doors make backtracking impossible.

Keys are used in the keyholder to open locked doors. Two other features are wall-makers and safety-zones. Wall-makers create pieces of wooden wall and safety-zones are places where you cannot be killed.

The most important object is the grenade (a holy hand-grenade perhaps Batman?) which is used to blow up the Saracen Chief. Once he is dead you progress to the next level. There are 40 levels to go through and you can start on any level.

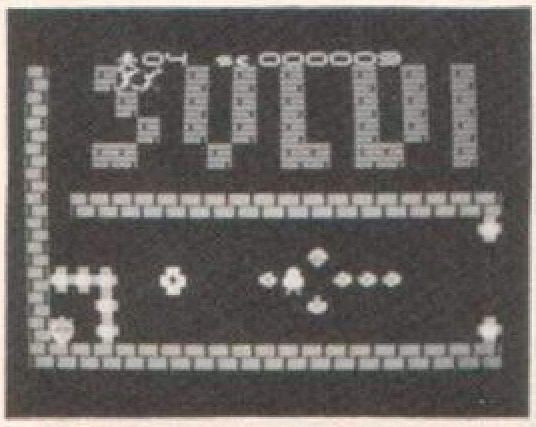
Throughout the game a tune plays which tends to depress you, rather than add to any atmosphere. Spot effects are adequate. Graphics are like those found in games from the early days of the Amstrad, small and ill defined.

SECOND OPINION

My sympathies go out to one reader who has already contacted us having bought this game on the strength of the screenshots on the packaging. Beware, they are not of the Amstrad version, or anything remotely like it for that matter. I don't really like making allowances for budget games, they ought to be out there competing with everything else. In those terms it's a pretty poor game. The graphics and animation are appalling and the gameplay is little better. There is much better budget software than this around, and software that doesn't try to mislead you with the cassette inlay. **BW**

GREEN SCREEN VIEW

Relatively clear action.



The Saracen chief, cowering behind a forcefield

The Verdict

GRAPHICS **26%**
- ■ Small characters which are poorly defined...
- ■ and they move jerkily.

SONICS **32%**
- ■ A rotten tune.

GRAB FACTOR **32%**
- ☐ Early levels are easy to complete.
- ■ A bit confusing at first.

STAYING POWER **40%**
- ☐ Forty increasingly difficult levels.
- ☐ Some intriguing problems on higher levels.

AA RATING **40%**
- ■ Not one of the better budget games.

The game plays in a similar way to *Boulderdash* although it does not compare very well. A bit more thought to how the game looks would have been nice, but at a budget price it may well keep you occupied for a while. **GBH**

FIRST DAY TARGET SCORE
Level 10

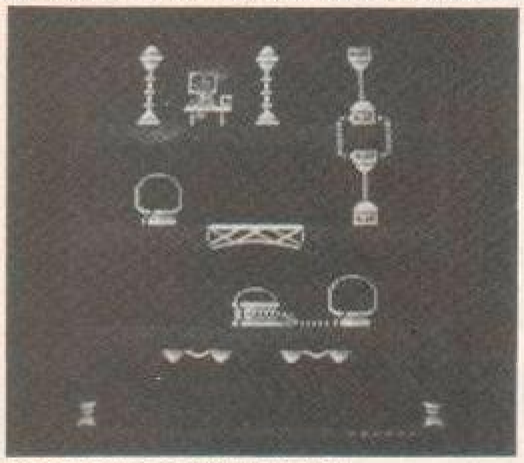
AGENT X II

MAD, £2.99 cass, joystick or keys

The Mad Professor is back with a vengeance. He has moved into an underground base on the moon and from there he plans to unleash the Zit-ray on the unsuspecting public. This hideous device will cause an outbreak of terminal acne all over the planet and make the prof a killing selling spot remover cream.

There are three parts to the game and each is completely independent of the others. The first game is a shoot-em-up with loads of cute aliens for you to shoot. The screen scrolls horizontally from right to left and the aliens swarm on in a variety of formations from either side of you. At the bottom of the screen is an energy bar which is depleted when ever the aliens hit you. Running out of energy causes the game to end. At the end of the level a giant brain appears which you shoot until it explodes.





Standing by a computer terminal

SECOND OPINION

The music and graphics flatter to deceive. The first part is incredibly cute and good-looking, and immensely boring to play. The nest two parts are slightly less impressive looking and sounding, but only marginally more interesting to play. I'll settle for just listening to the music. **BW**

GREEN SCREEN VIEW

Not even great graphics to impress here.

Part two is inside the moon and you have to log on to the computers by finding the access codes to them. Access codes are obtained by bumping into red spheres. The screen scrolls vertically as you move up and down within the complex. Aliens again drain your energy and running out causes death.

Finally there is a breakout type game in which you have to clear the screen of coloured blocks. You control a bat at the bottom of the screen while another bat moves rapidly across the upper part of the screen. If you miss the ball when it is coming towards you then your energy bar is depleted until you run out and the game ends.

All of the games are colourful, but the first has by far the best graphics. The tune in the first game is beautiful and fits in nicely with the almost cute aliens that you have to shoot. Sound in the second is not as good and the third game has terrible music.

There is no score indication at all and you end up feeling like you've got a game with no real objective. It looks nice, but there is just nothing to do. **GBH**

FIRST DAY TARGET SCORE

Complete the game.

The Verdict

GRAPHICS **87%**
- □ Smooth horizontal and vertical scrolling.
- □ Pretty sprites that you feel sorry for destroying.

SONICS **88%**
- □ Great tune on the first game.
- ■ No spot effects.

GRAB FACTOR **42%**
- □ Fun at first.
- ■ Very little to do.

STAYING POWER **34%**
- □ Three games to play.
- ■ Too easy to complete.

AA RATING **38%**
- ■ If the game was as good as the sound and graphics then this would be a Rave.

ZIGGURAT

Reaktor/Ariolasoft, £9.99 cass, £14.99 disk, joystick or keys

Long ago the Djo Carz were ruled by the slightly insane Tehotec. All of his treasures were taken with him to his grave in the temple/pyramid known as a Ziggurat. As a brave explorer you wander through a maze of chambers trying to discover the secret of where his treasure is hidden.

3D Swivo vision is how the view of the temple is described, this translates into a game with doors, platforms, lifts, objects and energy draining occupants, viewed in 3D perspective. Many problems must be solved and dangers bypassed before you reach the treasure chamber.

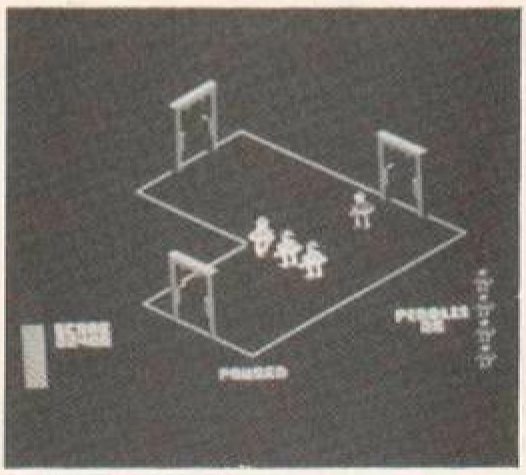
The temple is guarded by the beings known as Mimbies, the ghosts of other foolhardy explorers who died in attempts to take Tehotec's treasure. If you lose one of your five lives then your old body becomes a Mimbie, with the same thought as all the others, to kill explorers. Fortunately the Mimbies can be killed with pebbles from a sling, unfortunately you have neither pebble nor sling to begin with. Another way of dealing with Mimbies is by dropping dead mice on the floor, because for some strange reason they can't resist eating them. Also in your exploration you will come across pebbles, slings, lifts, marbles, mice, levers, spells and various other things to help you.

SECOND OPINION

There are some intriguing puzzles tucked away in this that should keep you tied up for many a long evening. It doesn't exactly take 3D into a whole new era, but it does contain some interesting variations on the theme. It's a shame it took so long to actually get on the streets (nearly a year), but isometric 3D fans will find plenty to occupy them. **BW**

GREEN SCREEN VIEW

Clear Mimbies everywhere.



Beware of the Mimbies.

If you want to you can have a continuous tune playing or you can turn it off. The tune itself is good and sounds pyramidish. Spot effects are simple, but effective. Colour is not used much, but everything is clear and easy to see. Movement of the characters is smooth and well animated. Problem solvers will find plenty to keep them occupied. **GBH**

FIRST DAY TARGET SCORE

5,000 points.

The Verdict

GRAPHICS **76%**
- □ Well animated characters and smooth movement.
- ■ Very little colour.

SONICS **64%**
- □ Nice tune.
- ■ Not much in sound effects.

GRAB FACTOR **72%**
- □ Mimbie bashing is fun.
- ■ Very difficult to start with.

STAYING POWER **75%**
- □ Lots of problems to solve.
- ■ No new ideas.

AA RATING **73%**
- □ Ideal for puzzlers and cartographers.

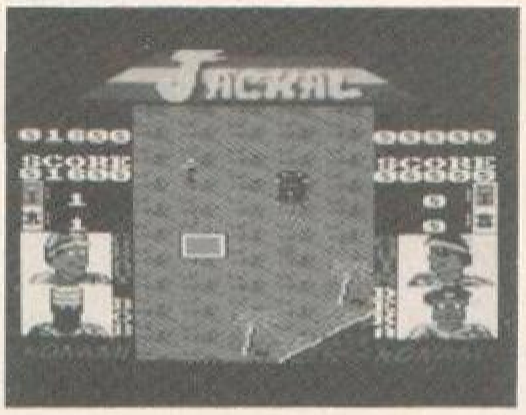
JACKAL

Konami, £8.95 cass, £14.95 disk, joystick or keys

Originality is the name of the game with this one – it has none! The scene is this: a surprise attack from the enemy caught the home team by surprise. They captured quite a few troops which they have imprisoned in huts behind their own lines. Four men and a jeep have been sent to the rescue – Bob, Grey, Quint and Deckar. I don't know what the jeep is called.

You control a jeep with a machine gun and a rocket launcher. Your task is to speed round behind the enemy lines finding men held prisoner in the buildings, left derelict by the onslaught of the enemy attack. You must beware, because there are still some troops left behind who somehow seem to be able to blow you up with a single bullet!

To find the men, you must manoeuvre your jeep to face a building. Then, by keeping the fire button pressed down, you must send a rocket into the building. This will force the prisoners to jump out and await rescue. To rescue them, simply run 'em over!



One man rescued

Similarly to *Commando*, each different bit of the playing area is separated by a big wall, with the entrance to the next bit sometimes guarded by a big gate. One blast from a rocket will make the gate disappear.

The next part of your task is to drop off the men at various locations where they will be picked up by helicopter. Once that is done you must move on to attack the enemy headquarters.

The game lacks so much in originality that I got bored with it very quickly. The gameplay is difficult at times and I felt that the enemy blew me up far too easily, especially the tank. The graphics are colourful, well drawn, and they move quickly. Sometimes it is difficult to move the jeep around in some tight areas, but you soon get the hang of that. Sound is pretty mediocre. **CJB**

SECOND OPINION

This one drove me crazy to start with because the action is so slow and it's so easy to get killed. The only technique for surviving is to trundle slowly around, scrolling the screen down a bit at a time, and dealing with the enemy one at a time. This tortuous process destroys the whole point of what ought to be an action game.
BW

GREEN SCREEN VIEW

No big difficulties.

The Verdict

GRAPHICS 63%
- ☐ Quick, well drawn characters.
- ☐ Good use of colours.

SONICS 47%
- ■ Mediocre sound effects.

GRAB FACTOR 64%
- ☐ Different things in different buildings.
- ■ Not much choice in which weapon to use.

STAYING POWER 52%
- ☐ Action gets tougher as you do.
- ■ Not much variation and no true two player option.

AA RATING 51%
- ■ *Commando* in a jeep.

FIRST DAY TARGET SCORE

Rescue 8 men.

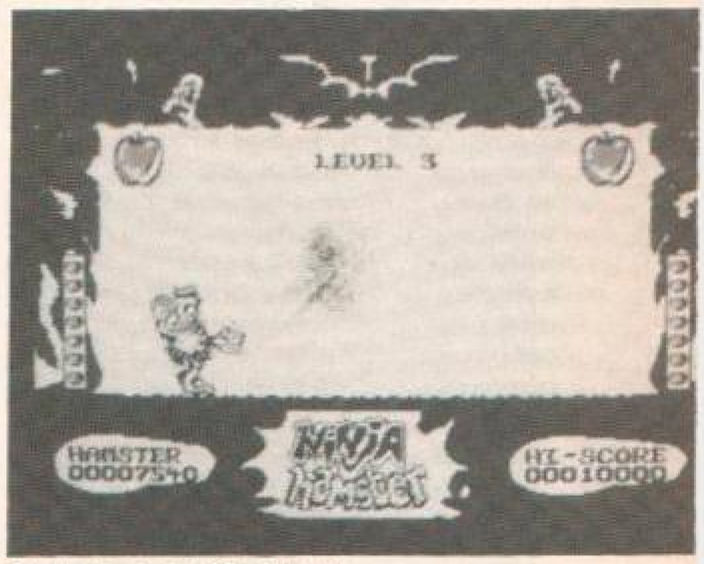
NINJA HAMSTER

CRL, £9.95 cass, £14.95 disk, joystick or keys

After a long journey you return home to find your village being terrorised by a group of evil creatures. You are a hamster with martial arts abilities and decide to rid your village of the nasties.

You have a variety of manoeuvres that you can use to kill your opponents, such as kicks, jumps and blocks. Each time you hit your opponent his energy goes down until it reaches zero. A bite is then taken from the apple over your opponents head and when only the core is remaining he dies. If you run out of apple then you die and the game ends.

Your eight opponents are Sinister Rat, Lizard of Death, Mean Monkey, Barmy Bee, Crazy Cat, Perilous Parrot, Mad Dog and Loony Lobster. The first few opponents are easy to beat, but later ones get better and better at fighting. Other hazards appear on the later levels in the form of flying boxing gloves and maces that drain your energy. The opponents are loaded in two at a time until you have encountered all eight, when the village is saved.



Barmy Bee meets Ninja Hamster

Animation is poor and very little colour is used in the game. The character graphics are large and well designed. Sound is simply that of landing a punch or kick on your opponents, and a title tune.

If you want a good martial arts program then this is not the one. It looks and feels badly programmed. Very disappointing. **GBH**

SECOND OPINION

Combat games are all washed up in this sort of form. I thought Barbarian was stretching the point, but even a bit of mickey taking like this fails to interest. It's all very well to have what you might call a 'spoof' martial arts game, but if the gameplay is just as boring as all the previous ones, then the joke would appear to be on whoever buys it. As ever with these things the two player game has some merit, but that can't be used as an excuse for not having a decent one player game. It's time this one was given the chop. **BW**

GREEN SCREEN VIEW

Perfectly clear.

The Verdict

GRAPHICS 63%
- ☐ Large, detailed characters.
- ■ Poor use of colour.

SONICS 36%
- ■ Biff, bop.

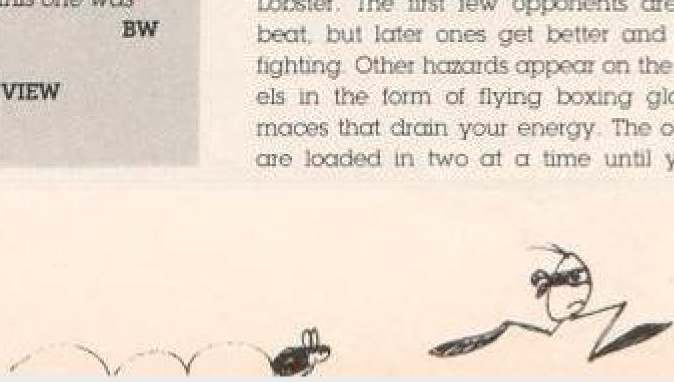
GRAB FACTOR 48%
- ■ Same old martial arts theme.
- ■ Nothing innovative to make it stand out.

STAYING POWER 39%
- ☐ Martial arts freaks may find it occupies them for a while.
- ■ Too easy to complete.

AA RATING 44%
- ■ Boring.

FIRST DAY TARGET SCORE

Defeat four opponents.



GAUNTLET II

US Gold, £9.99 cass, £14.99 disk, joystick or keys

One year on, Thor, Merlin, Thyra and Questor return in another conversion from the arcades. All of the features of *Gauntlet* are there and some new ones have been added to improve on the old game. Two people can still play as a team in their exploration of the dungeons and there are over 100 for you to explore.

The game is basically the same with a lot of additions to give more variety to the gameplay. The first difference is that both players can use the same type of hero, two wizards for example. This may not seem particularly useful, but it will stop the arguments over who uses which character. You can also choose what colour the character is. Special powers have been retained from the original and are used by collecting the appropriate potion bottle. Extra armour, magic power, shot power, fight power and pick-up power potions can be found. Amulets have been added and they do one of the following: invisibility, invulnerability, repulsiveness, transportability, super shots and reflective shots.



Each of the levels has an exit and your objective is to reach this exit and stay alive for as long as possible. Unfortunately there are lots of hostile dungeon denizens who attempt to hamper your progress through the game. All of the old monsters, sorcerers, grunts, ghosts, lobbers and demons, are present and they still pour out of generators. Death still wanders around the dungeons and severely drains your energy. Some new monsters are the super sorcerers, acid puddles and the "it" and "that" monsters. All four of the new monsters can't be destroyed by magic, but are stunned instead.

Super sorcerers teleport in, shoot you and then teleport off again. This continues until you shoot him. Acid puddles slither around aimlessly and drain your health by a large chunk if you bump into them. The "it" monster causes all of the monsters to be drawn towards the player who is "it". If you bump into the other player then you can make him become "it" instead. The "that" monster looks exactly like the "it" monster, but makes you lose one of three things: a special power, a potion or 100 health.

Food and bottles of cider can be found littered throughout the dungeons and eating or drinking them increases your health when you pick them up (cider never makes me feel healthier). Beware the poisoned food as this decreases your health. Shooting poisoned food causes all of the monsters to slow down for a while. Treasure chests now come in two forms which are the ordinary ones and the locked ones. Treasure chests give you bonus points and locked chests need a key for them to be opened and contain treasure, a key, food, a potion or Death.

Treasure rooms appear as in the original and they give you the opportunity to boost your score and possibly acquire some potions. To get the bonus in the treasure room you need to find the exit within the time limit. On later levels your shots can often stun or wound the other player and so you have to be more careful with who you shoot at.

The graphics are very similar to those found in *Gauntlet* and the background graphics are more detailed. Animation is simple, but effective and movement of the characters seems smoother. The "it" monster looks particularly good. The four way scrolling is smooth and fast. Sound is limited to spot effects with a title tune on the loading screen.

Dragons exist in the arcade version of the game, but they have not made the transition to the Amstrad. This will probably disappoint fans of the arcade game or make them breath a sigh of relief. The secret room is another feature of the arcade game which is missing, but this is not such a drastic loss. The thief has been replaced by the "that" monster. A good conversion of the arcade game that will keep you monster bashing for long time. **GBH**

SECOND OPINION

The first game was one of my favourites and I think they've managed another winner. The additional features add significantly to the gameplay, and the improvements to the graphics are also very effective. It's bound to appeal to everyone who bought the original and should entice yet more people into its addictive grasp. **BW**

GREEN SCREEN VIEW

You can do the monster mash as easily in green as you can in colour.

FIRST DAY TARGET SCORE

75,000 points

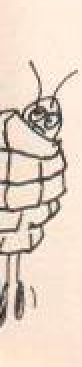


POWERS BEYOND BELIEF

Extra Armour: absorbs some of the damage done by the monsters.
Extra Magic Power: increases the effect of potions.
Extra Shot Speed: increases rate of missile fire.
Extra Shot Power: increases damage inflicted by missiles.
Extra Fight Power: increases hand to hand combat.
Extra Pick-up Power: increases the number of objects that you can carry from ten to fifteen.
Food and Cider: increase Health by 100 points.
Poison Cider: drains health if eaten or slows monsters if shot
Keys: used to open doors and locked chests.
Treasure Chest: increase score by 100 points.
Locked Chest: contain either food, treasure, potion, key or Death.

Amulets

Invisibility: monsters can't see you and so just wander around.
Invulnerability: monsters can't hurt you, but your health decreases more rapidly.
Repulsiveness: monsters can not stand the sight of you and run away.
Transportability: you can run through any solid object.
10 Super Shots: destroy all monsters in their path until they hit a wall.
Reflective shots: bounce off walls and allow you to shoot around corners.



RAVE







The Verdict

GRAPHICS **86%**
- More detailed backgrounds.
- Good use of colour.

SONICS **64%**
- Nice sound effects.
- Only a title tune.

GRAB FACTOR **91%**
- Has all of the addictiveness of the original.
- Extra features make it even better.

STAYING POWER **87%**
- Over 100 levels to complete.
- Not a lot of thought needed.

AA RATING **90%**
- Whether you're a fan of *Gauntlet* or not this will keep you occupied through the winter months.



IK+

SYSTEM 3

MATCHDAY II

Ocean, £8.95 cass, £14.95 disk, joystick or keys

Jon Ritman and Bernie Drummond are the programming team that brought you *Batman* and *Head over Heels*. Recently their attention has been concentrated on football and this is the result. All the features of *Matchday* have been retained and lots of new options have been added.

The "front end" of the game is enormously impressive, giving a tremendous range of useful options. From a menu you can choose to play against the computer, play another person, two people playing the computer, a cup competition or a league. In the first two options you play one off games which you can handicap at the start of each half so that one team has an advantage. This is useful because it makes it possible for novices and experts alike to have a challenging contest.

Two people against the computer is an unusual option, but it does give you an opportunity to gang up on the computer. The cup and league competitions allow up to eight people to play against each other or you can use the two player against the computer option.

14 matches are played in the league competition and points are awarded with three points for a win, one for a draw and none for a defeat. The cup is played through three rounds: quarter finals, semi-finals and final, the winner of each match going through to the next round. In the cup, extra time and replays crop up if the score is even at the end of the match.

The final option on the main menu lets you change most of the features of the game. Keyboard and joystick control can be defined by the player, team names, tactics and the colour scheme can also be changed. The tactics options allows you to specify whether each of the two teams plays an offensive or defensive game.

Further options allow you to alter the volume of the sound, time for each half (5, 10 or 15 minutes), kickometer, skill level of the computer and whether or not the goal keepers are computer or human controlled. The computer has three skill levels and it plays a mean game even at low level.

The kickometer is used to determine the



Gooooooooooooaaaaaaaaaal.

STIFFLIP & CO.

Palace, £9.99 cass, £12.99 disk, joystick only

Count Chameleon is about to unleash a dastardly plot on the unsuspecting world. Through the mail-order ads in a civil service magazine he has been selling rubber goods and his experiences with rubber have helped him to develop the Rubbertronic Ray. With this he has the power to make everything starched and stiff become droopy and, worse still, it will affect the bounce of cricket balls. He must be stopped.

The program is divided into two parts which appear on opposite sides of the tape and part one must be finished before you start part two. Fortunately for the Empire a group of heroes just happened to hear of his plans and set off for the Banamian republic to stop his heinous plan. The expedition is undertaken by four people who are Miss Palmyra Primbottom, Professor Braindeath, Viscount Sebastian Stifflip and Colonel R.G. Bargie.

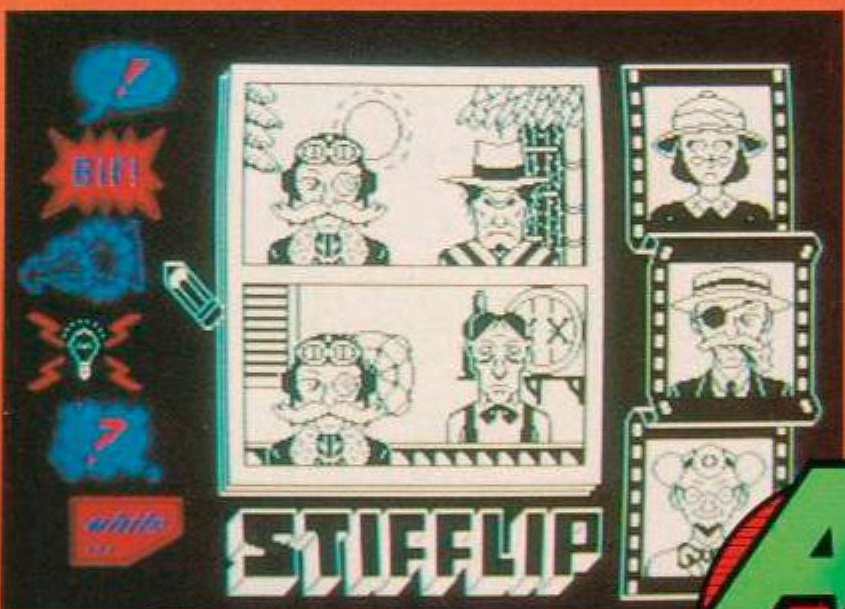
Each of the characters has their own strengths and weaknesses and their abilities will be needed to solve the various problems that you are set. Miss Primbottom is an expert embroiderer, Prof. Braindeath is the brains, Sebastian is the leader and the Colonel is a

SECOND OPINION

Interesting to see icons making a comeback in this one. They're well used to make a compulsive adventure. Palace's inimitable sense of humour also comes across well. The tasks are quite difficult and will test out any adventurer, but the presentation is beautiful so it will appeal to most people. It's not a game you can easily categorise, which is excellent news because it provides originality and enjoyment that you can't get from many titles these days. **BW**

GREEN SCREEN VIEW

It's as clear in green as it is in colour.





power with which the ball is struck and for the first few games you will be better off setting the kickometer to hard kicks. The "all kicks" option has the added feature that you can do back heels, but practice is needed before you will be able to master this. One last option lets the computer matches be attended or unattended which means that either you can watch the two computer teams battle it out or just see the results.

SECOND OPINION

As far as I'm concerned Jon Ritman and his sidekick Bernie Drummond are the best game programmers you can find. Every little detail seems to be taken from the point of view of "what would the player like to be able to do here" rather than "what's easily and quickly programmed". The essential gameplay hasn't really changed but you can do just about anything you want to to change things around. A lot of programmers and software houses could learn a lot from the thoroughness of this team. I hope they do. **BW**

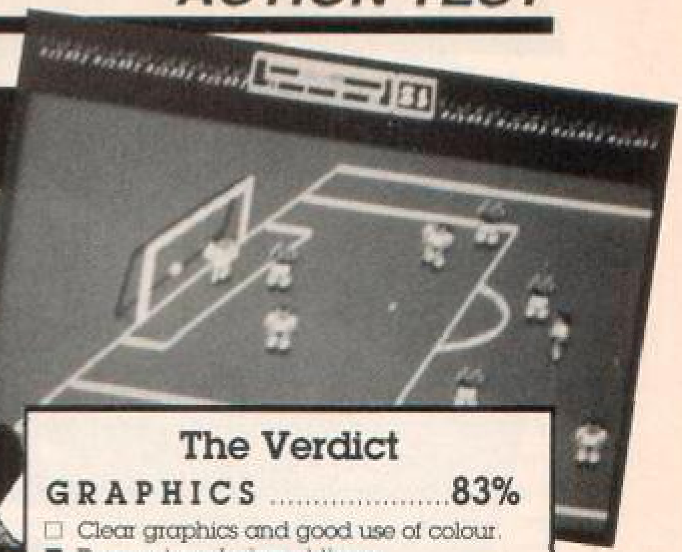
During play you control the player that is nearest to the ball, or who it is headed towards. Control changes when the ball goes out of range of the player. The ball can either be kicked or headed and the power of the shot is governed by the status of the kickometer. You can tackle your opponent or even give him a friendly nudge to try to cause a mistake.

In *Matchday* the graphics were not exactly brilliant, but they have been completely re-done this time and they look much better. Some confusion does occur at times when a lot of figures are clustered around the ball, but this is only to be expected in this sort of game. Sound is limited to the kicking of the ball and roar of the crowd.



This is by far the best arcade style football game I've seen. There are so many options to choose from that you can tell that a lot of care has gone into the programming. The handicapping feature means that you will always find it a challenge to play.
GBH

FIRST DAY TARGET SCORE
Beat computer at medium skill level.



The Verdict

GRAPHICS 83%
- □ Clear graphics and good use of colour.
- ■ Does get confusing at times.

SONICS 46%
- □ Simple but effective sound effects.

GRAB FACTOR 85%
- □ All the playability and addictiveness of the original.
- □ Great concept of two players on one team against the computer.

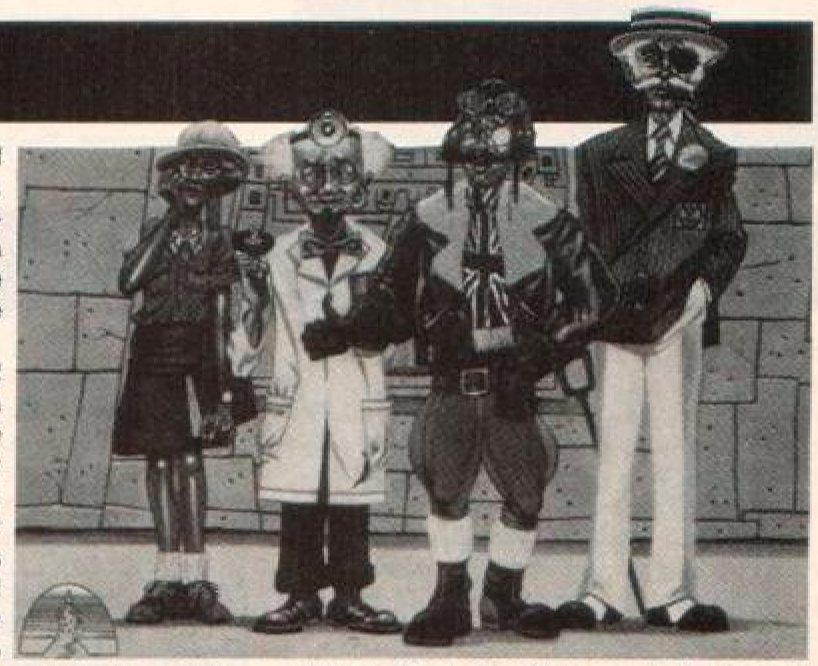
STAYING POWER 88%
- □ Comprehensive and astounding list of options.
- □ Winning cup and league will you a long time.

AA RATING 86%
- □ Arcade football games have reached a new height.

gardening specialist.

The screen is split into three main areas which are the location graphics, representations of the heroes, and the icons. The icons allow you to interact with other characters, fight, move, do things with objects, status and change character. Interaction with other characters allows you to talk to, give to or take something from another character. Fight lets you enter into fisticuffs with any enemy and you have a choice of punches to use on them. Move shows you a representation of the room with a pair of feet that can be pointed through the appropriate doorway.

An extensive lists of options is available in things that can be done with the objects, for example: looking around, picking up, dropping or using an object. Status shows you the health of the appropriate character and your percentage score. Change character lets you switch between the four characters that you have under your control.



Location graphics shows you the room that the currently selected character is in and is split into two cartoon like boxes. When you do something, such as move the character, the bottom picture scrolls beautifully upwards into the top box and a new picture appears. This effect looks really impressive and shows what can be done with good programming. The representations of the characters shows the three that you are not controlling and if you change character another impressive sequence of graphics occurs as the two cartoon boxes are peeled up into top right corner of the screen like the page being torn from a notepad. The pictures of the characters are then swapped with another good graphic trick.

Some of the graphic effects in this game are stunning, but it is a pity that colour is not used much. Tunes do feature in the game, but only occasionally. Sound effects are atmospheric and well programmed.

Being entirely joystick driven, but having adventure overtones, makes it a difficult game to categorise. Arcade freaks probably won't like it, but adventurers and strategists will find a lot to keep them occupied if they find it in amongst their Christmas presents. **GBH**

FIRST DAY TARGET SCORE
25% completed on part one.

The Verdict

GRAPHICS 87%
- □ Spectacular screen effects.
- ■ Pity about the lack of colour.

SONICS 64%
- □ Atmospheric spot effects.

GRAB FACTOR 77%
- □ Well packaged and thought out.
- ■ Frustrating until you solve the first puzzle.

STAYING POWER 84%
- □ Lots of problems to solve.
- □ Effectively two games for the price of one.

AA RATING 81%
- □ An unusual and interesting game.

CHAMONIX CHALLENGE

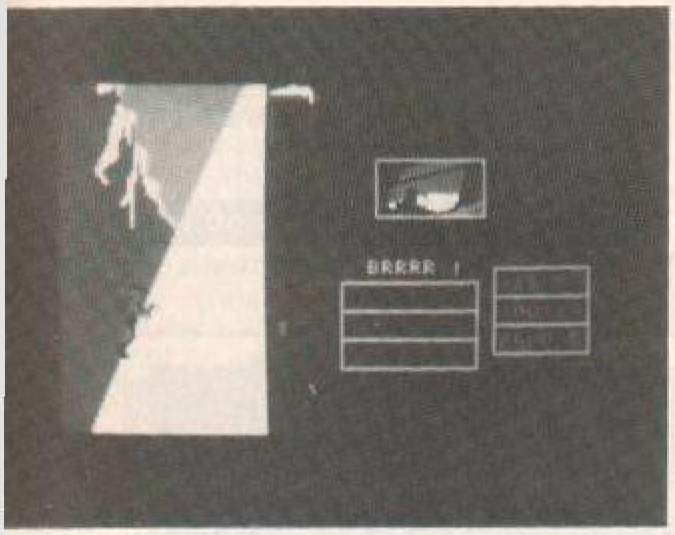
Infogrames, £9.95 cass, £14.95 disk, joystick or keys

Simulations of unusual sports seem to be Infogrames pet subject at the moment. First there was *Championship Water Skiing* and now you can go mountain climbing in the Alps.

Three stages are involved in the game: choosing the route, packing your rucksack and the climb itself. The routes are of six difficulty levels ranging from easy to extremely difficult and each of the routes has the duration of the climb and difficulty level marked.

A default rucksack is available or you can pack one of your own, choosing by selecting the appropriate pieces of equipment. Rope, boots, clothing, food and many other items can be taken. You will need to choose equipment carefully if you are to succeed in the climb. You can then choose the hour and season of the climb.

The climb begins with you walking across the top of a glacier with ice axe in hand. You walk to the right and can jump over crevasses or test the ground for weaknesses. If you fall down a crevasse then you must climb up a snow slope. This involves inserting ice-axes and your feet into the snow and pulling yourself upwards. Climbing snow slopes is tricky and you often end up falling back down again.



SECOND OPINION

As with submarine simulations, I'm not at all sure that this is a wise subject to write a computer game about. After all it involves long days of moving around extremely slowly doing as little as possible except moving upwards. Granted it may appeal to mountaineers or anyone looking for a long technically complicated task, but that is not a description of the average gamesplayer. Of curiosity value but with too many gameplay flaws. **BW**

GREEN SCREEN VIEW

Green scenery is no problem.

The other part of climbing is going up rockfaces and this is probably the trickiest part. You have to select which limb you want to use and do your best to find a suitable hand or foot hold to help you up the face. Falling rocks are also a hazard that must be avoided.

If you want to use an object from the rucksack or one you are carrying then you have to switch on the pointer by pressing enter and positioning it over your rucksack or head as appropriate. The game can also be saved for completion later.

Graphics are colourful and large. Movement of the climber is jerky and slow. A tune plays at the start of the game, but in the game there are few effects.

If you like mountaineering or want to know more then you should find something of interest in this game. If not then you will probably be disappointed since it's difficult to play and confusing. **GBH**

FIRST DAY TARGET SCORE

Conquer a difficulty two mountain.

The Verdict

GRAPHICS 78%
- □ Good use of colour.
- ■ Bad animation.

SONICS 37%
- ■ Very little sound and what there is isn't very good.

GRAB FACTOR 64%
- □ Intriguing simulation.
- ■ Frustrating when you keep slipping down the slopes.

STAYING POWER 73%
- □ Six levels of difficulty to play with.
- ■ Boring gameplay.

AA RATING 68%
- ■ Likely to appeal to mountaineering enthusiasts only.

BLUE WAR

Go, £9.99 cass, £14.99 disk, keyboard only

Not many submarine simulations hit the market, but if it's a simulation, you can be sure it's me that gets to review it. I don't mind really, especially when they are on a varied theme like this one. Well done to Go for being brave enough to try this one.

You control a U39 submarine and its crew of 35 men. It is wartime, and your mission is to patrol the waters in search of enemy craft. As in all walks of life, your eventual aim is to reach the top of the promotional ladder, in this case Admiral.

There are eight main rooms in the submarine. An icon menu at the bottom of the screen allows you to go to each room. The screen is divided into two sections. The first section shows the view inside the present room. This would be the view from the front of the ship when in the Control/ Operations room. The second section of the screen shows the status of the ship and which functions you can use in this room. In the Control room, this would show all the functions, from manning the pumps to firing torpedoes.

You can choose from diesel or battery engines. If you dive below the surface while using diesel engines, the engine compartment will flood and the submarine will stall. You must then switch to the battery engine and start the pumps. Some damage will be shown on the damage report, but this will soon go as you keep pumping out the engine room.

The other rooms are the radar room, the log room, the records room, the engine room, the map room and the Radio room. Every now and then a message will come over the radio telling you of ship movements spotted by a scout plane. To view this you must go to the

SECOND OPINION

Sub simulations have been tried before, and I'm afraid to say that this does not change my opinion of them. They are over complicated and lacking in action. The whole point of submarines is that they cruise around for days, weeks or months doing absolutely nothing, pop up for five minutes to sink a ship and then disappear again. This is not a good thing to base a game on, now is it? **BW**

GREEN SCREEN VIEW

No problems.



Mine Enemy

ALIENS (US VERSION)

Electric Dreams, £9.99 cass, £14.99 disk, joystick or keys



The best graphics in the game are those found in the drop-ship sequence.

The U.S. version of the Aliens "game of the film" at last hits my desk. Can this be true? Six games in one? I wouldn't call them games, just levels. Don't put too much hope in the instruction booklet helping you through this game, unless you don't mind spending ten minutes looking through the whole thing until you eventually find the bit that explains the level you've just reached!

> **SECOND OPINION**
>
> *I struggled for ages to try to complete the drop ship sequence and just could not do it. Putting that sort of thing right at the start of the game is crazy. The cheat allows you to progress, but by then any feeling of achievement or atmosphere is right out the window. Give me the original with atmospheric soundtrack any day.* **BW**
>
> **GREEN SCREEN VIEW**
>
> *Levels are adequately playable.*

You control Ripley at first in her quest to save her fellow marines from the evil grasp of the Aliens. The first level asks you to guide your ship through the turbulence surrounding the planet that has been taken over. This is the best bit of the game, and needless to say the hardest bit. A wormhole appears before you and you must struggle with the controls to force your ship to stay in the middle.

The second level is called the APC rescue attempt. This is where you guide each of the four marines back to the surface of the planet. You can choose which of the four marines you control at any one time. Four screens are shown at the bottom of the screen. These show the status of each marine. They show when an alien is near one of them, and when an alien has eaten one of them. Level three is where you try to fend off a barrage of attacking aliens while your comrades attempt to cut a whole in the door. The aliens hurtle toward you down one of a number of different tracks at varying speeds. You must shoot them or stand in their way.

In level four you have to find your way through the maze of the air-duct system to get to the drop ship. Level five is where you must save Newt from the Aliens before the Atmosphere Processor explodes. The last level is where you battle against the Queen. You do this by repeatedly hitting her with your power blaster until she becomes so weak that you can grab her and drop her through the air lock. Voila, c'est tout.

The first level was brilliant until I tried to play it. I felt so cheated because this game looked to be so good. Unfortunately, my expectations soon dropped. Level two onwards uses some of the worst graphics since my eight year old cousin got into defining characters. The colours used are awful and the figures are poorly animated – if you can see them at all. The sound is mediocre. Probably one of the most annoying games this year. **CJB**

FIRST DAY TARGET SCORE

Pass the first level fairly.

The Verdict

GRAPHICS ... 51%

- □ Good animation on level one.
- ■ Let down by shoddy, small characters after level one.

SONICS ... 34%

- ■ Nothing to shout about.

GRAB FACTOR ... 60%

- ■ Level one is too hard to pass.
- □ In-built cheat lets you play all the levels.

STAYING POWER ... 52%

- □ Six games in one.
- ■ Confronting the Queen is so boring!

AA RATING ... 55%

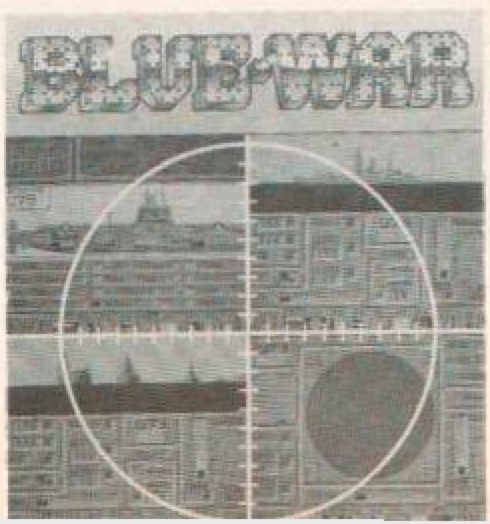
- ■ Poor finish to a good start.



radio room.

In combat you must try and fire your torpedoes at the enemy ship before it has time to fire its guns at you. If you succeed in shooting it, a poxy little explosion will appear on the screen horizon and the ship will disappear from view.

Not a bad simulation, but lacking in finesse. The drawing of the enemy ships is slow, and there is an annoying delay when trying to go from one room to another. Graphics apart from that and the fact that enemy ships are drawn in outline only, are not bad. The use of colour is good, and the map shows a lot of detail. Sound effects are not brilliant during the game, but there is a nice sound effect just after loading. Definitely one for my simulations collection, but for excitement I would stick with a shoot-em-up. **CJB**



FIRST DAY TARGET SCORE

Shoot an enemy ship then return home.

The Verdict

GRAPHICS ... 68%

- □ Good, extensive use of colour.
- ■ Graphics are slowly drawn.

SONICS ... 53%

- □ Nice loading sound effects.

GRAB FACTOR ... 58%

- □ Easy to get straight into the action.
- ■ Delay in accessing functions.

STAYING POWER ... 65%

- □ Difficult task to complete.
- □ Vast range of functions to use.

AA RATING ... 61%

- □ A competent sub simulation.

CLEVER AND SMART

Magic Bytes/Ariolasoft, £9.99 cass, £14.99 disk, joystick or keys

Dr Bacterius, the famous scientist of the secret service, has been kidnapped by the most dangerous of all terrorist organisations, O.A.P. You control Clever and Smart in their attempts to recover the doctor. The reason for the kidnapping is unknown and no ransom note has been received.



Clever and Smart are the most famous members of the secret service and also the best, which is why they have been called in on this case. Clever is master of disguise and leads the duo, Smart tends to help Clever out of the disastrous situations that he usually ends up in.

No clues are given to begin with and you have a small amount of money to buy things. The game is basically in two sections: above ground and in the sewers. Above ground there are many buildings which you can enter. The buildings are of several types which include your office, telephone boxes and a variety of of other buildings. Some of the buildings require Clever to wear a disguise and they are bought from the disguise shop.

The streets are also filled with thugs from OAP, policemen and old ladies. Bumping into an old lady produced some explicit language on our review copy but we understand this will be removed for the final version. Bombers occasionally appear and run around town until they decide where to plant the bomb. You can try to defuse the bomb.

Underground are a network of sewers which you can wander around. Cats and mice occupy the sewers and they drain your energy if they hit you. From the sewers you can listen in on local telephone calls or lay cables.

Money is something that you are going to need and this can be obtained in one of the following ways: betting on snail races, throwing coins in the kindergarten or forging cheques.

Graphically this game is nothing special, they are colourful, but the movement is not good. Sound is simple and uninspiring. **GBH**

SECOND OPINION

The most exciting thing that happened while playing was the discovery of the four letter word. There are some nice ideas and touches of humour, but the whole thing doesn't hang together too well as a game. The adventure element of it is what keeps you going, but even this is obscure and hindered by the arcade elements. **BW**

GREEN SCREEN VIEW

You can be as clever in green as you can be smart in colour.

FIRST DAY TARGET SCORE

Defuse a bomb.

The Verdict

GRAPHICS **58%**
- ■ Not very well animated.
- ■ Undetailed graphics.

SONICS **38%**
- ■ Just spot effects.

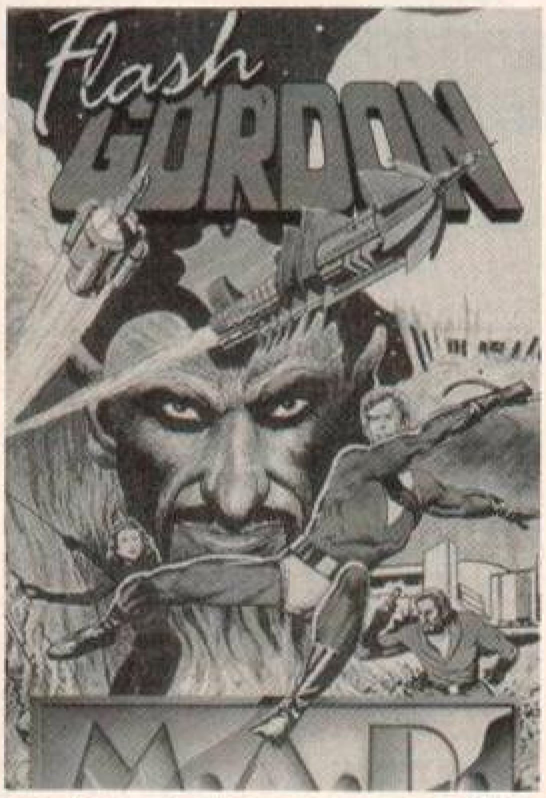
GRAB FACTOR **63%**
- □ Fun exploring at first.
- ■ Little incentive to keep playing.

STAYING POWER **54%**
- □ Should prove a tricky game to solve...
- ■ but this is due to unhelpful instructions.

AA RATING **58%**
- ■ Not enough game to keep you occupied.

FLASH GORDON

MAD, £2.99 cass, joystick or keys



Early this century there was a series called *Flash Gordon*. In the last ten years a film was made all about Flash and his friends. Now you can be Flash as he attempts to defeat Ming and protect the Earth, courtesy of Mastertronic.

The game loads in three parts and the parts must be played in the order in which they are on the tape. In the first part of the game you wande around the jungle as trying to find Prince Barin in his cave. Arrows mark the route and you must shoot or avoid the inhabitants of the jungle.

In part two you try to convince Barin to help you by a bit of hand-to-hand combat. The combat is resolved in standard combat game technique, you have a variety of manoeuvres which you can do, including kicks, punches and rolls.

Below the playing area is a picture of Flash and Barin pulling on a rope in a tug of war. Every blow that you land on Barin pulls him towards you and every time you are hit you are pulled towards Barin. To win the combat you must pull Barin right across to your side of the screen. If you win the combat then part three loads and if you fail you must start again.

Finally, you must try to catch Ming on your jetbike. A scanner shows the position of Ming, and you must navigate towards him avoiding the robot guards. After the guards are some gates which replenish your energy if you pass through them. A minefield then stands in your way and finally you catch up with Ming who tries to destroy you.

The graphics are colourful, but get messy when something passes behind something else. The sound effects are simple pings and bangs. There is a tune which is good and this plays some of the time.

There are many things wrong with this game. The first is only an irritation and is when you have to stop loading the game part way through to select the method of control. Why can't this be on a menu screen of the game itself. Part one is boring and repetitive. Part two is a simple combat game. **GBH**

FIRST DAY TARGET SCORE

Get to the combat stage.

The Verdict

GRAPHICS **56%**
- □ Good use of colour.
- ■ Messy when things pass over each other.

SONICS **67%**
- □ Nice tunes.

GRAB FACTOR **40%**
- □ Part two and three are OK.
- ■ Part one is rubbish.

STAYING POWER **32%**
- □ You may come back to two and three.
- ■ Far too easy.

AA RATING **37%**
- ■ A very poor effort.

JUDGE DEATH
Piranha

Judge Anderson is soon to be doing battle with the four dark judges of Death, Fire, Mortis and Fear. Anderson is the only one who can defeat



them with her Psychic powers. The game is split into six sections which are four parts of Megacity one and then out into the wastelands you go. Finally you confront them in Deadworld, home of Judge Death.

GRYZOR
Ocean

Another coin-op conversion arrives. You are the only hope to defeat the aliens in their stronghold. There are many enemies standing between you and your final objective, the destruction of the giant beating heart which lies deep within the stronghold. The game is split into several different subgames with each game requiring slightly different approaches.

Our incomplete pre-production version



demonstrated most of the graphics, which looked excellent. The different stages should provide a varied challenge. The difficulty level had also still to be tweaked but it looked like being one of the tougher games around.

SAPIENS
Loriciels

A thousand centuries ago the human race was just beginning to get to grips with survival. Weapons were crudely fashioned from flint and stone and survival was difficult. In this game you wander prehistoric Earth trying to help your tribe to survive by co-operation, fighting and hunting. The game features the now familiar concept of fractal graphics to view the Earth in 3D perspective.

The copy we've seen so far was entirely in French but it shows every sign of being an interesting variation on the adventure theme.



MASK II
Gremlin

Obviously a very different game from the original. Man and truck in destructive harmony against the forces of Venom. We liked the first one, lets hope number two is as good.

NIGEL MANSELL'S GRAND PRIX
Martech

The sound of roaring engines will soon be heard in many homes as the latest racing simulation is approaching completion. The game



can be played as a simple racing game or for the more technically minded it can be treated as a fully fledged sports simulation.

The most absorbing games are often ones where good arcade action is combined with healthy doses of strategy. If Martech get the balance right, there may be a lot of people eager to follow Nigel's footsteps into a Formula one car.

BLOOD VALLEY
Gremlin

A game based on the Duelmaster series of books, and from the same stable as *Way of the Tiger*. Your unsurprising task is to escape



from Blood valley. The graphics look atmospheric and attractive

BASIL THE GREAT MOUSE DETECTIVE
Gremlin

Based on the Disney cartoon, you are Basil who must seek out the lair of his arch enemy, Ratigans, where your faithful assistant Dr Dawson is being held. You leave your home in



the basement of 221b Baker Street and using your deductive powers try to rescue your friend from the clutches of that dastardly villain.

COMPENDIUM
Gremlin

Not exactly what you would expect from a compendium. I mean here we see Sniffer the dog trying to catch beer glasses being chucked around in the pub. Other events to be included are real Snakes and Hazzards, Ludo and Bingo.



Activision

This is another a recent arcade game undergoing conversion, and it's having the final touches added to it by Activision. In the arcade there were three monsters who were the Werewolf, Lizard and Gorilla and each of them could be controlled by a player.

It could get crowded around keyboard because three people can also play in the Amstrad version. It should be finished soon and then you can demolish your way around America and eat innocent National Guard men.

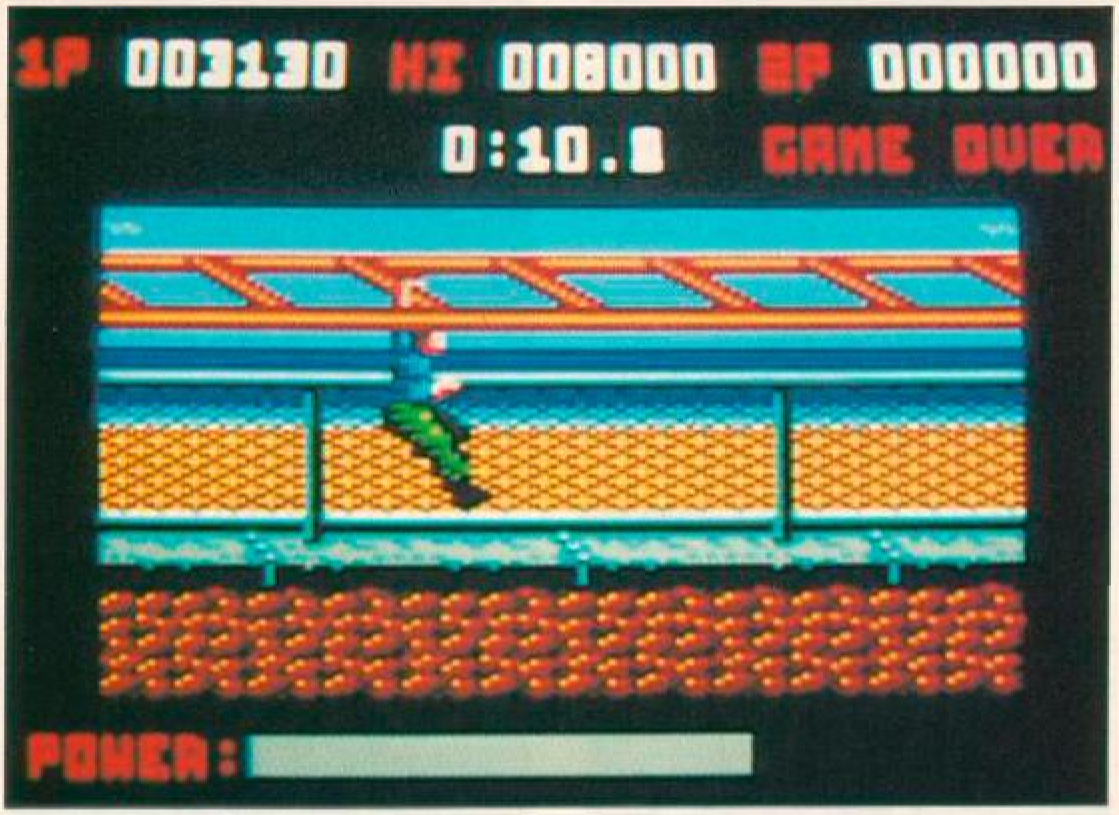
KNIGHTMARE
Activision

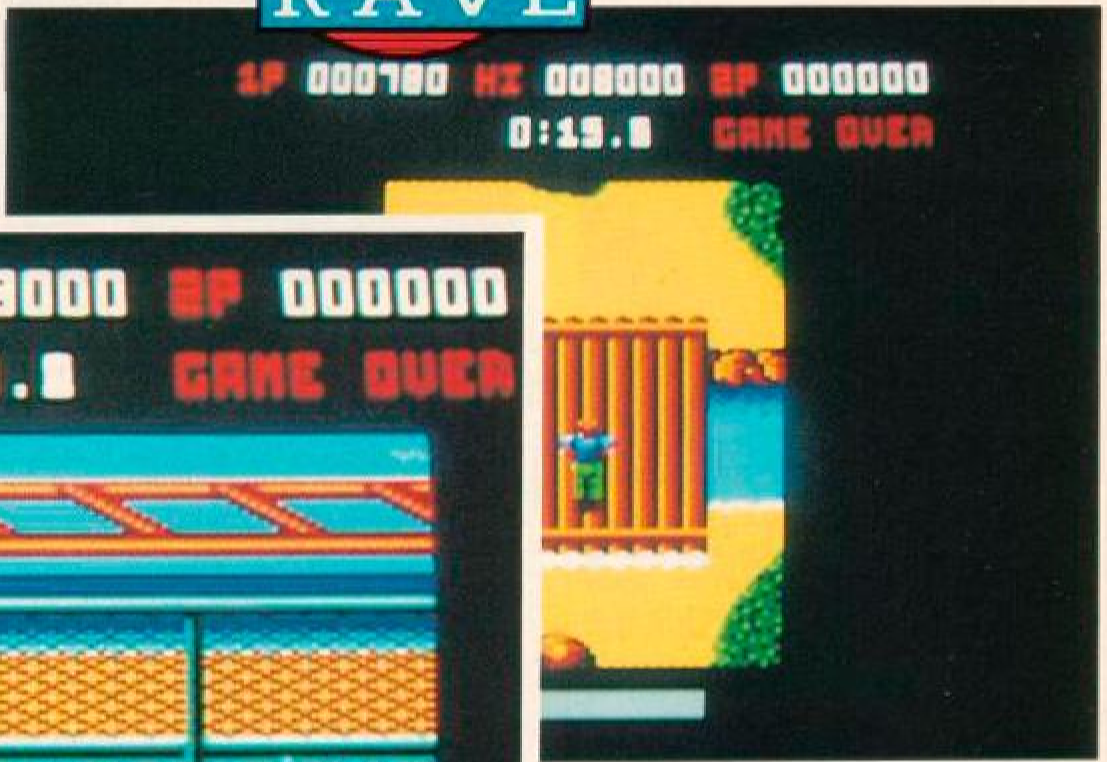
This game is based on the Anglia TV series of the same name. The game is a blend of adventure and arcade action and the on screen presentation represents the pages of a book. Riddles and puzzles test the knowledge of the player. It looks a bit like the old Hewson game *Dragontorc*, but we will have to wait and see what it actually plays like when finished.

COMBAT SCHOOL

Ocean, £8.95 cass, £14.95 disk, joystick or keys

Uncle Sam needs you. Join the US army and go through the rigorous training needed to become a captain. Another arcade conversion, and one which involves a lot of good old fashioned joystick waggling. One or two players can play, but unlike the arcade version, only one player is on screen at a time.





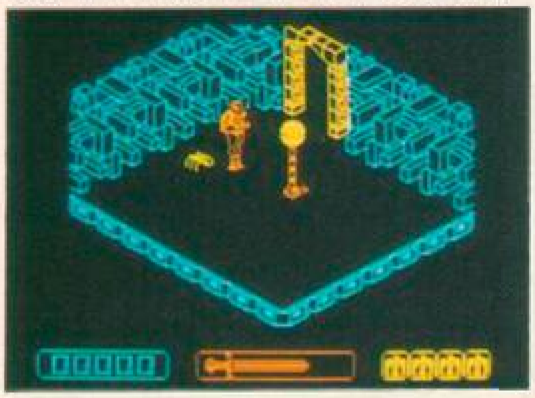
The monkey bars will keep you waggling.

There are seven events to compete in: the assault course, iron man race, arm wrestling, three firing ranges and the fight with your drill instructor. The assault course is first and in this you waggle like mad as you run along the course jumping over hurdles of varying

PHANTOM CLUB

Ocean, £8.95 cass, £14.95 disk, joystick or keys

From the same stable as *Movie* comes another game in the same mould. The Phantom Club is a group of super heroes who have strange and deadly powers. They were at one time good, but due to the influence of their Overlord, Zarg, they have become evil. You, Plutus,

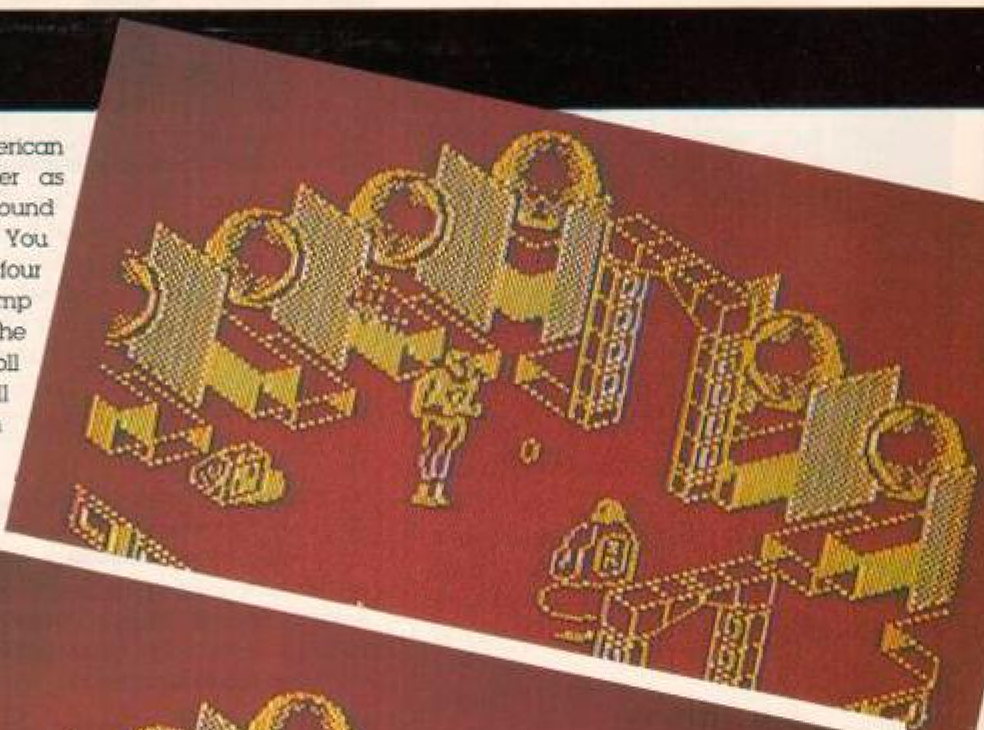


Shoot the ball for bonus points.

stand alone as the last good member of the Phantom Club and decide to rectify the situation by defeating Zarg and his minions.

The action takes place inside the Phantom Club itself, a large building with over 550 rooms. Each of the rooms is shown in 3D graphics in the same style as *Movie*. Across the bottom of the screen is a status display which shows the number of lives you have left and the energy of your current incarnation.

You control Plutus, who looks like an American football player as he runs around the place. You can move in four directions, jump and fire. In the jump you roll up into a ball and travel in the direction you are fac-





heights. After the hurdles is the monkey bars in which you must again waggle your way along to the end, then a short sprint to the finish line.

SECOND OPINION

It's nice to see a decent waggling game again. It all got a bit predictable when software houses only used waggling in athletic events, but this sort of variation is great. The events are all well put together and quite tough, the multi-load making better graphics and more stages possible. I think you'll tire of it eventually, but there's a lot of waggling and sweating to be done before that happens. **BW**

GREEN SCREEN VIEW

Waggle in green with no problems.

In this event, as in all others, you must complete the objective within a time limit. If you fail by a lot then the game ends, but if you only just fail to qualify then you have to do chin-ups as a punishment. If you succeed in the chin-ups then you continue the game, otherwise it's game over. Chin-ups are difficult and involve a lot of waggling, but that's the punishment for failure.

Firing ranges appear as the second, fourth and sixth events. The first range involves targets which appear out of the ground and you move the sight over them and fire. On the second range you shoot at tractors which appear in a variety of different formations. The final range has targets that appear out of the ground only this time there are some targets that you should not shoot because they freeze the sight for a time. On each firing range you need to score the necessary number of hits within the time limit to progress to the next event.

In the third event, the iron man race, you have to waggle again and jump over rocks, pools and mines that lie in your path. Eventually there's a river where you have to swim to a canoe and then row to the other side. Another sprint and you cross the finishing line.

Arm wrestling is the fifth event and here you and your opponent sit on either side of a table. You must then waggle like mad in order to force your opponents hand down in a contest of pure muscle. Win this and you are one more step closer to the final confrontation with your drill instructor. The last stage of the game involves a one on one battle with your instructor. If you defeat him then you have achieved your objective of attaining the rank of captain.

Graphics are varied and colourful in all of the events. The animation of the soldier is smooth and the action is at a fast pace. There are no tunes, but the spot effects are clear and well programmed.

This is one of the best waggling games to come out for a long time. Other events have less waggling, but the action is still fast and furious. Seven events and chin-ups as a punishment makes this a difficult game to master and a simple one to play. **GBH**

FIRST DAY TARGET SCORE
25,000 points

The Verdict

GRAPHICS **78%**
- ☐ Smooth animation and scrolling.
- ☐ Great use of colour.

SONICS **43%**
- ☐ Good explosions.

GRAB FACTOR **88%**
- ☐ Waggle away to your hearts content.
- ■ Frustrating having to do chin-ups.

STAYING POWER **81%**
- ☐ Seven events to master.
- ■ Will become repetitive after a while.

AA RATING **84%**
- ☐ Not much thought, but a lot of fun.

ing. Firing allows you to send a psychic bolt towards something or someone, but it looks like you are emitting a very powerful blast of spit.

Inside the club there are many moving and static hazards for you to avoid or destroy. The static ones all drain your energy on contact, but the moving ones are more dangerous. Monks, Buddhas, man-spiders and others can be found stalking the rooms of the club. To dis-

SECOND OPINION

I didn't enjoy Movie much because of the weird icon system it employed. I find this one easier to get into but it's still got too much aimless wandering around. It's a classic game for the mappers and explorers, and once you know your way around it comes into its own. It doesn't have enough exciting variety to grab me, but there certainly is a big challenge awaiting if you want to complete it. **BW**

GREEN SCREEN VIEW

Simple colour choices show up clearly.

able these you must shoot them and several shots are needed to destroy most of them.

There are ten ranks of power in the Phantom Club and you start at lowest of these, Zelator. To move up a rank you must complete the mission associated with your current rank. To complete a mission you first need to find a movie screen and shoot at it. You also need at least 40,000 points before you can take on the mission. If you are of high enough rank to undertake the mission then you can proceed, otherwise you will be informed of the rank you need.

Missions involve going to a particular room and doing something like shooting or collecting an object, the mission depending on your rank in the club. Once you complete a mission you move up a rank until you reach the tenth rank when you must defeat Zarg.

Floating spheres appear in some rooms and touching one for the first time gives you an extra life. If you touch the same ball again then you will lose energy. A floating diamond can also be found and this gives you extra speed for a limited time. A spinning sphere can be shot once for a large bonus score. Throughout the club you will find rotating cubes on pillars. If you shoot it then you can save the game for completion at a later date.

Spooky sound effects occur frequently in the game, unfortunately they are not particularly good. Other spot effects are of a similar standard and the title tune is passable. There is very little colour on screen at any one time and some of the combinations are poor. The animation is good, but things do slow down a lot when there are many things on screen at one time.

If you like exploration games of this type then many long hours will pass before you complete this one. One niggle is that control is annoying at times because of the large steps that you take, it makes it difficult to pass through doorways at times. **GBH**

FIRST DAY TARGET SCORE
Complete two missions.

The Verdict

GRAPHICS **74%**
- ☐ Great animation.
- ■ Bad choice of colours in some rooms, and not much of it.

SONICS **43%**
- ■ Poor effects and only a title tune.

GRAB FACTOR **68%**
- ☐ Arcade exploration fans should enjoy this game.
- ■ Tedium does set in after a while.

STAYING POWER **76%**
- ☐ Completing ten missions will take you a long time.
- ☐ 550 rooms to explore.

AA RATING **71%**
- ■ An old style of game that just won't die.

OUT OF THIS WORLD

Reaktor/Ariolasoft, £9.99 cass, £14.99 disk, joystick or keys

The RP2-16 jet fighter is the fastest and most powerful aircraft of its kind in the world. It has a top speed of 0.9 times light speed. You are the test pilot and feel that with a bit of a push you could take it beyond the speed of light. A quick burst on the Quark cannon and the speed increased to that of light and you were hurled into another world. On arrival in the other world you find yourself under attack from an assortment of aliens.

At first it appears to be just another *Defender* clone with horizontally scrolling graphics and wave after wave of aliens to obliterate. Some features have been added to make the game different, extra weapons, bonus levels many more types of alien.

There are seven types of weapon which include firing to the front and back, four way firing, three bullets, seven bullets and a "destroy everything in it's path" weapon.

To add a weapon to your ship you have to collect "coins" which appear sometimes when the alien ships are destroyed. On the first level you need to collect four coins to add the weapon to the ship and the number of coins increases as you go up to the next level. When you are in the situation that one more coin will give you a weapon the coin flashes. Unfortunately the weapon is not a permanent addition to your firepower and after a time it ceases to function and another must be collected. Only one extra weapon can be used at a time. When you go to the next level all unused coins are discarded.

Aliens tend not to like being shot and so they do their best to annihilate you. There are many types of aliens and they move in different attack patterns. On higher levels some of the aliens shoot back at you and if they bump into or shoot you then one of your five lives is lost. The aliens appear at random in groups of three and sometimes they materialise right where your ship is, frustratingly resulting in your demise.

There are eight levels to complete and seven bonus screens. To go to the bonus level you must collect a letter "B" that appears on screen periodically. In the bonus level you merely have to survive until the end of the wave by shooting or dodging the incoming aliens. After the bonus wave you go forward to the next level in which there is a new landscape and more dangerous aliens.

A good tune plays on the title screen and in game effects are more functional than anything. There is nothing wrong with them as such, but they do tend to irritate you after a while. The smooth scrolling landscape extends into the border of the screen and is a small chunk of screen which wraps around at the edges. The landscapes are very colourful and so is everything else for that matter. Sometimes the aliens or the ship merge with the background and you can't see where you are going or who is around you.

There is not much thought required in this game, but it's a fast and addictive shoot-em-up that will keep you blasting away long into the night. Eight levels may not sound like much, but they do get hard very quickly. Probably one of the best zap games in recent months.

GBH

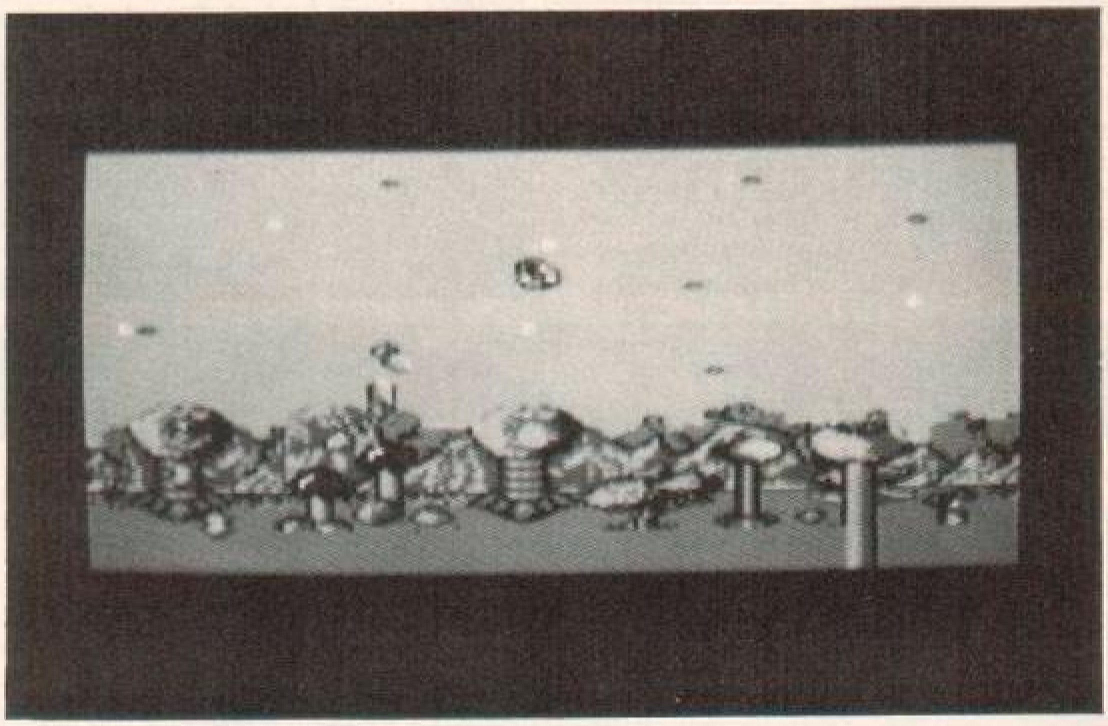
FIRST DAY TARGET SCORE
40,000 points

SECOND OPINION

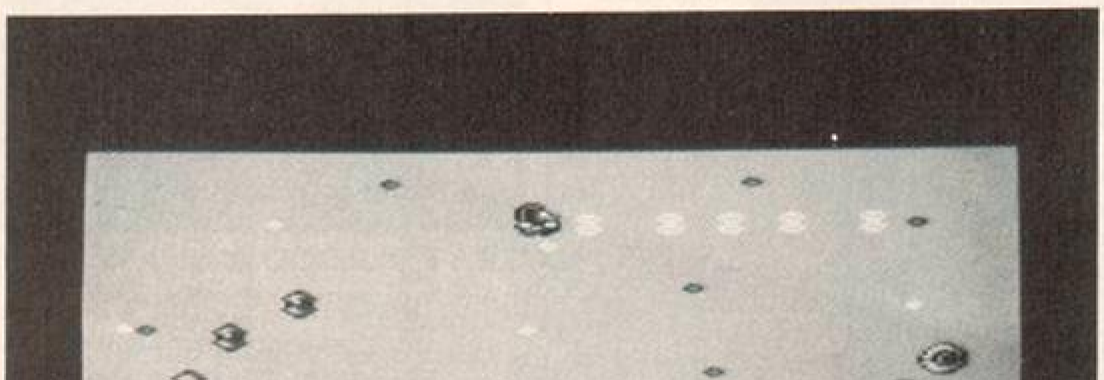
Deliciously smooth horizontal scrolling, fast action and superb graphics make this a very scrumptious game. Although not top in the originality stakes, it's great for a relaxing - and challenging - blast. **RpM**

GREEN SCREEN VIEW

Some things are tricky to see in colour and even more difficult to spot in green.



The first level and aliens surround your ship.



The Verdict

GRAPHICS **92%**
- □ Smooth horizontally scrolling landscape.
- □ Colourful sprites with good movement.

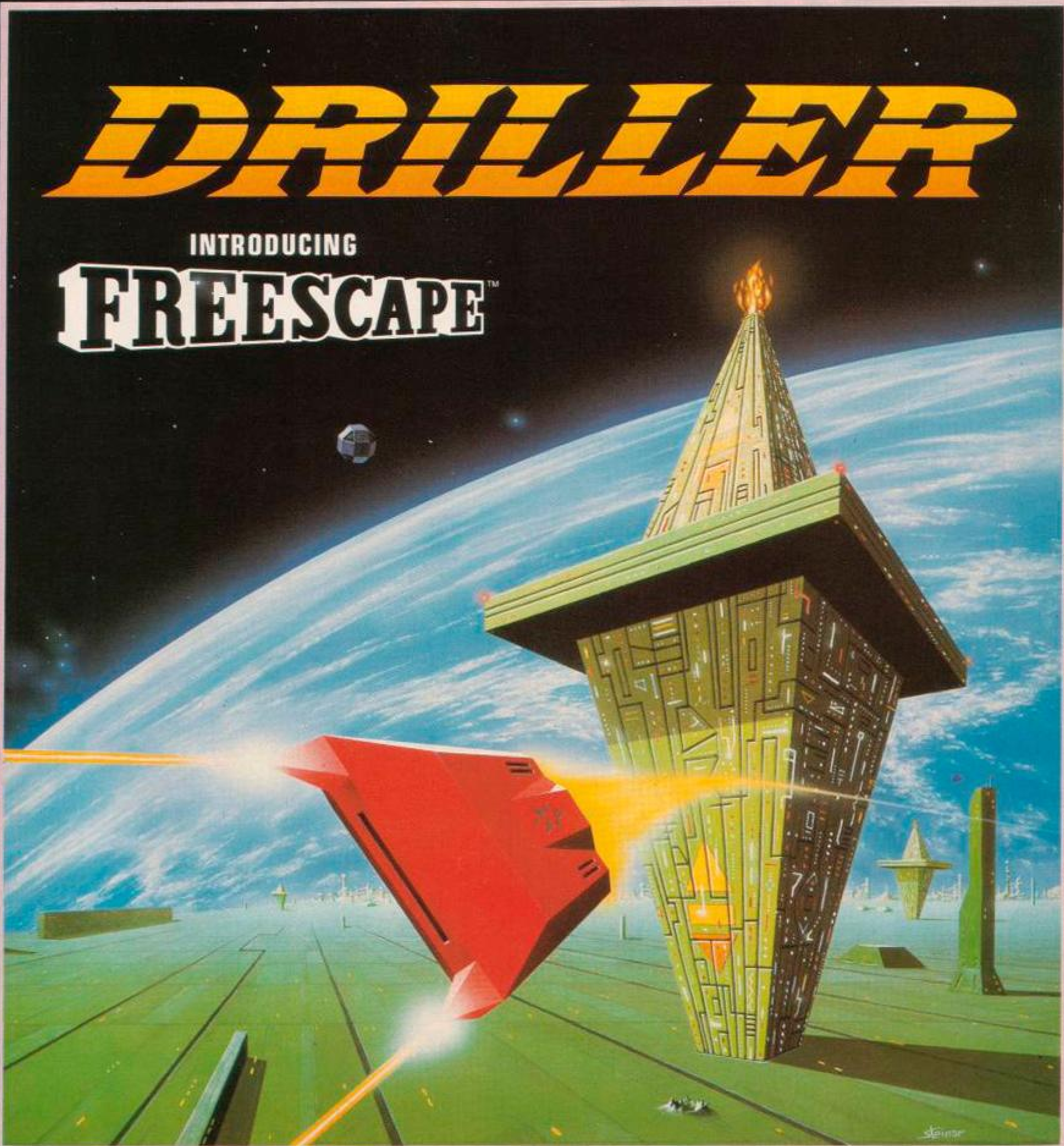
SONICS **78%**
- □ A nice title tune.
- ■ Spot effects are a little irritating.

GRAB FACTOR **80%**
- □ Blast away to your hearts content.
- □ Frustratingly addictive.

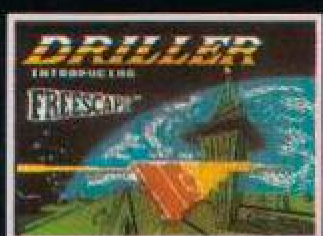
STAYING POWER **74%**
- □ Eight levels and seven bonus screens to complete.
- ■ Little thought needed.

AA RATING **77%**

□ A worthwhile addition to any collection.









SOLID
3 DIMENSIONAL GRAPHICS

SPECTRUM
COMMODORE
AMSTRAD CPC
Cassette £14.95
Disc £17.95

Mitral – An abandoned Moon – An unstable Moon about to blow – A defence system set on automatic – Lasers that don't miss – Scanners that hunt you out. *Mitral is MASSIVE . . .*

"The 3D presentation is Spectacular" *SINCLAIR USER.* ***"A Major Breakthrough"*** *AMSTRAD USER.*

"A New 3 Dimensional Reality . . . WOW!" *CRASH.*

THE DRILLER EXPERIENCE – IT'S JUST LIKE BEING THERE!

incentive SOFTWARE LTD 2 MINERVA HOUSE, CALLEVA PARK, ALDERMASTON, BERKSHIRE RG7 4QW (07356) 77288

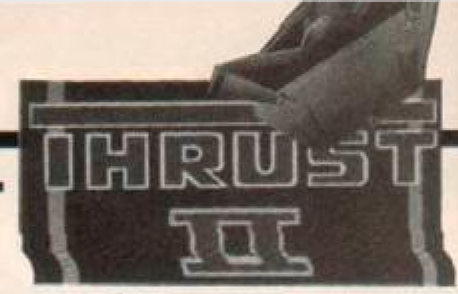
"...the best racing
played — even be



SEGA®

Commodore 64/128 Cassette (£9.99) and Disk (£12.99) ZX Spectrum 48k/128k/+ (£9.99) Amstrad CPC Cassette (£9.99) and D

Mail Order: Activision (UK) Ltd, Units 3 & 4 Lloyds Close, Finedon Road Industrial Estate, Wellingborough, Northampto



CHEAT MODE

Dick'n'Gary check out your tips, pokes and game-busting ploys. The best ones win an entire issue's *Raves* and the *Mastergame*. Send your latest gem to: Cheat Mode, *Amstrad Action*, 4 Queen Street, Bath BA1 1EJ

POKE METHODS FOR TAPE

Here is how to input the majority of Cheat Mode tape pokes. The instructions for each poke tell you which of the two different methods to use. If you have a 664 or 6128, first type |tape.

METHOD 1

Rewind the game tape to the beginning. Now type in the poke listing. Then type RUN and press the Enter key. (Don't use the key marked CTRL or Control; that would stop the poke from working.) Press the Play key on the cassette deck, then any key on the main keyboard - spacebar will do nicely. The tape should now start to play through in the normal way.

METHOD 2

For this method you have to skip the first bit of the game program. To do that, start by rewinding the game tape to the beginning. Now type in the listing. Then type CAT and press Enter. Start the tape by pressing Play and then any key. Then watch the screen.

Soon you'll get the message Found *something* Block 1. It doesn't matter what the *something* actually is: this will vary from one game to another. If the Cheat Mode instructions just tell you to skip the first block, you should stop the tape here.

If the instructions tell you to skip several things, stop the tape when the Found message comes up for the last thing you're trying to skip.

Once you've stopped the tape, press Escape, type RUN and press Enter. Now press Play on the tapedeck and any key on the keyboard to start the tape running.

Thrust II

Michael Swain has sent in this poke for infinite lives in Firebird's game. It's entered using Method 1.

```
1 ' Thrust II - tape
2 'by Michael Swain
3 'Amstrad Action Christmas 87
10 FOR a=&BE80 TO &BE95
20 READ d:POKE a,d:NEXT
30 CALL &BE80:RUN""
40 DATA
243,42,9,0,34,150,190,33,143
50 DATA
190,34,9,0,251,201,245,175,50
60 DATA 187,38,241,195
70 END
```

Motos

Stephen Basford of Crewe had a poke in last months issue, but unfortunately part of the listing disappeared. This is a modified version sent in by Stephen that has some added features. You can have as many lives as you like or make them infinite, infinite power, infinite jumps and by pressing the Esc key you can jump levels. Press Esc again and then die to jump to the next level. It's entered using Method 1.

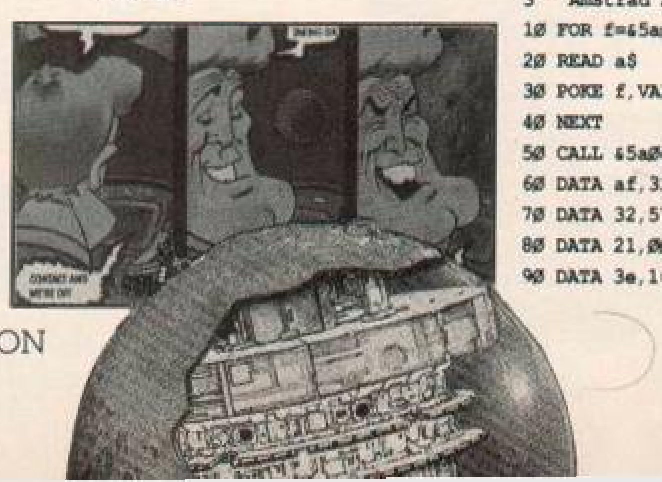
```
1 ' Motos - tape
2 ' By S Basford
3 ' Amstrad Action Christmas 87
10 MODE 1
20 FOR c=&BE80 TO &BEC7
30 READ h$:d=VAL("&"+h$)
40 POKE c,d:tot=tot+d:next
50 IF tot<>5680 then 400
60 INPUT "No of lives:";v
70 INPUT "Inf. Lives [Y/N]";a$
80 INPUT "Inf. Power [Y/N]";b$
90 INPUT "Inf. Jumps [Y/N]";c$
100 INPUT "ESC level [Y/N]";d$
110 POKE &be97,v
120 IF a$="n" THEN POKE &BE9C,61
130 IF b$="n" THEN POKE
&BEA1,144
140 IF c$="n" THEN POKE
&BEA6,144
150 IF d$="n" THEN POKE
&BEAB,209
160 IF d$="n" THEN POKE &BEAC,30
170 CLS:PRINT"Loading..."
180 CALL &BE80
190 DATA 21,00,40,11,be,37
200 DATA 3e,16,cd,a1,bc,30
210 DATA f3,21,96,be,22,24
220 DATA 40,c3,00,40,3e,05
230 DATA 32,79,0b,3e,00,32
240 DATA fb,05,3e,00,32,df
250 DATA 06,3e,00,32,ea,06
260 DATA 21,d8,06,22,60,05
270 DATA 21,be,be,11,9a,0a
280 DATA 01,0a,00,ed,b0,c3
290 DATA 00,04,53,50,42,40
300 DATA 48,41,43,4b,45,44
310 PRINT"Data Error"
320 END
```



Phil Howard of Mapperley has sent in this poke for Imagines Rave game. It's entered using Method 1 and gives you infinite lives.

RpM discovered the password to allow access to the second part of Imagine's Rave. It is 897653.

```
1 ' Freddy Hardest - tape
2 ' by Phil Howard
3 ' Amstrad Action Christmas 87
10 DATA 00,2a,0f,bc,22,1d
20 DATA bd,21,0e,bc,36,c3
30 DATA 23,36,15,23,36,be
40 DATA c3,19,32,af,cd,1c
50 DATA bd,3a,00,be,3c,32
60 DATA 00,be,fe,02,c0,21
70 DATA 2a,be,22,5c,34,c9
80 DATA dd,21,5b,aa,11,00
90 DATA 01,cd,ea,a9,21,3
100 DATA be,22,0a,ab,c3,85
110 DATA aa,3a,7a,aa,fe,0c
120 DATA 28,07,3e,a7,32,75
130 DATA 66,18,05,3e,a7,32
140 DATA fa,8a,c3,00,80
150 MODE 1:y=0:MEMORY &3000
160 FOR x=&BE00 TO &BE52
170 READ a$:a=VAL("&"+a$)
180 POKE x,a:y=y+a:NEXT
190 IF y<>&2003 THEN 210
200 LOAD"":CALL &BE00
210 PRINT"Data Error"
220 END
```



Feud

Peter Featherstone of Leeds has sent in this poke for Mastertronic's budget game of wizardly combat. It gives you infinite energy and invulnerability to the the herb keeper and Leanoric and is entered using Method 1.

```
1 ' Feud - tape
2 ' by Peter Featherstone
3 ' Amstrad Action Christmas 87
10 FOR f=&5a00 to &5a1e
20 READ a$
30 POKE f,VAL("&"+a$)
40 NEXT
50 CALL &5a0c
60 DATA af,32,cd,1f,3e,c9
70 DATA 32,57,0e,c3,00,04
80 DATA 21,00,50,11,4c,01
90 DATA 3e,16,cd,a1,bc,3e
100 DATA 5a,32,08,50,c3,00
110 DATA 50
120 END
```



LEADER BOARD

Phil Howard of Mapperley has sent in a mega-poke that allows you to design golf courses in US Gold's Rave game. Extensive instructions are included.

When the program is run you will see a "V" shape to the right of the screen. This corresponds to the perspective view from the tee at the bottom, up towards the green. Anything positioned outside the boundary may not be seen when you run the game. The distance is given in the range Ø-5ØØ yards.

To the bottom left of the "V" is block one, pressing "z" and "x" rotates back and forth through the available blocks, pressing the cursor keys moves the chosen block in the appropriate direction and "copy" positions it.

Up to six blocks may be positioned for any hole, but if less are required press the large "enter" key after storing you final block and the hole will be terminated. The green is always positioned in the final block.

You are asked if the design is ok, the par you want to set and if you would like to design another hole. If not, or after the 18th hole, the program moves on to save the routine you have just created, this saved routine can then be run. It will load and alter up to 18 holes of course one.

Useful points:

The hole is positioned 75 feet from the end of the final block - some blocks are not that big.

The rectangular blocks tend to position the hole at the edge. Try to use round ended blocks, the larger the better for greens.

Always position a block over the tee, it will work without the block, but it looks strange.

```
1 ' Leaderboard Course Designer - tape
2 ' by Phil Howard
3 ' Amstrad Action Christmas 87
4Ø GOSUB 127Ø
5Ø adat=&9516
6Ø bdat=&9366
7Ø cdat=&9354
8Ø ddat=&933Ø
9Ø FOR h=1 TO 18
1ØØ DIM d(6,6)
11Ø GOSUB 184Ø
12Ø bl=1
13Ø GOSUB 139Ø
14Ø NEXT
15Ø POKE &93ØA,f
16Ø POKE &92FF,f*2
17Ø POKE &932Ø,f*12
18Ø IF f*24>256 THEN POKE
&9315,(f*24)-256:POKE &9316,1
19Ø IF f*24<256 THEN POKE &9315,(f*24)
2ØØ SPEED WRITE 1
21Ø SAVE "NEW
DESIGN",b,&92A5,&4ØØ,&92A5
22Ø PRINT:PRINT"CALL &92A5 to load
LEADER BOARD"
23Ø PRINT"** No return to basic **"
24Ø STOP
25Ø '** data for blocks + code **
26Ø DATA Ø1,ØØ,ØØ,Ø7,f6,fb,fb,f6,3ea
27Ø DATA Ø5,f6,Øa,fb,Øa,Ø5,Ø5,Øa,21e
28Ø DATA fb,Øa,Ø8,f6,fb,fb,f6,ØØ,4ef
29Ø DATA ec,Ø5,f6,14,ØØ,Ø5,Øa,ØØ,2Øa
3ØØ DATA 14,fb,Øa,Ø5,f6,f6,ØØ,f6,4ØØ
31Ø DATA Øa,fb,Øa,Ø5,ØØ,Øa,Ø9,f6,21d
32Ø DATA fb,fb,f6,Ø5,f6,19,e7,Øa,4f1
33Ø DATA fb,Øa,Ø5,Ø5,Øa,ØØ,Øe,e7,2Øe
34Ø DATA 19,Ø9,f2,ØØ,e7,e7,ØØ,f2,3d4
35Ø DATA Ø5,f6,Øa,fb,Øa,Ø5,19,19,241
36Ø DATA Ø5,Øa,fb,Øa,Ø9,f6,ec,fb,3fa
37Ø DATA f6,ØØ,f6,Ø5,f2,Øa,ØØ,Ø5,2f2
38Ø DATA Øa,Øa,14,ØØ,Øa,fb,Øe,Ø9,144
39Ø DATA fb,f2,ØØ,f6,Øa,ec,Ø5,f6,4d4
4ØØ DATA Øa,ØØ,Ø5,Øe,ØØ,Øa,fb,Øa,12c
41Ø DATA f6,14,Ø5,fb,fa,fb,f2,Øe,4ff
42Ø DATA f2,Ø5,Ø5,fb,19,Ø6,ec,d9,3db
43Ø DATA fb,fb,Øe,Ø5,19,19,Ø5,Ø5,245
44Ø DATA fb,Øa,Ø9,fa,f6,fe,e7,ØØ,4e3
45Ø DATA ec,Ø2,e7,Ø6,f6,Ø6,Øa,Ø2,2e3
46Ø DATA 19,ØØ,14,fe,19,Ø7,f2,fb,338
47Ø DATA fb,f2,Ø5,f2,Øe,fb,Øe,Ø5,4ØØ
48Ø DATA Ø5,Øe,fb,Øe,Ø5,ØØ,e7,ØØ,2Ø8
49Ø DATA e7,Øa,ØØ,ØØ,19,ØØ,19,Ø6,129
5ØØ DATA f6,e7,ØØ,e7,Øe,fb,Øe,Ø5,3eØ
51Ø DATA ØØ,19,f6,19,Øc,f2,ØØ,f2,318
52Ø DATA e7,ØØ,e7,ØØ,e7,Øa,e7,Øe,3b4
53Ø DATA e7,Øa,ØØ,Øe,19,Øa,19,ØØ,13b
54Ø DATA 19,ØØ,19,f2,19,Ø6,fb,fc,33a
55Ø DATA fb,e7,Øa,fb,Øa,ØØ,Øa,Ø5,3ØØ
56Ø DATA fb,Øe,Ø6,e8,f1,fb,fb,Ø5,4e3
57Ø DATA f6,Øa,fb,Øa,Ø5,Øa,19,Ø9,236
58Ø DATA f6,fb,fb,f6,Øa,ec,Øa,ec,5ce
59Ø DATA Øa,ec,19,Øa,f6,14,f6,14,32d
6ØØ DATA f6,14,Ø7,ec,fb,ØØ,e7,ØØ,3df
61Ø DATA e7,Ø5,e7,14,Ø5,ØØ,19,ØØ,2Ø5
62Ø DATA 19,Ø7,f2,ec,ØØ,e7,Øe,ec,3df
63Ø DATA Øa,ØØ,Øe,14,ØØ,19,f2,14,14b
64Ø DATA Ø5,Ø3,e7,ØØ,e7,Ø4,ØØ,ØØ,1da
65Ø DATA 19,Ø2,19,Ø9,fb,ec,fb,e7,4Ø6
66Ø DATA Ø5,e7,Ø5,ec,Ø5,ØØ,ØØ,14,1f6
67Ø DATA ØØ,19,ØØ,19,ØØ,14,Ø9,ØØ,Ø4f
68Ø DATA ec,ØØ,e7,ØØ,e7,ØØ,ec,Ø5,3ab
69Ø DATA ØØ,Ø5,14,Ø5,19,fb,19,fb,246
7ØØ DATA 14,Ø5,f6,e7,ØØ,f6,Øa,ØØ,2f6
71Ø DATA Øa,19,ØØ,Øa,Ø5,ØØ,f6,Øa,132
72Ø DATA e7,Øa,ØØ,ØØ,Øa,f6,19,Ø9,213
73Ø DATA Ø5,f6,fb,e7,Ø5,e7,Ø5,e7,4b5
74Ø DATA Øa,fb,Ø5,Øa,fb,19,fb,19,33c
75Ø DATA fb,19,Ø9,f6,fb,fb,e7,fb,5eb
76Ø DATA e7,fb,e7,Ø5,f6,Øa,Ø5,Ø5,3d8
77Ø DATA 19,Ø5,19,Ø5,19,Ø9,fb,fb,254
78Ø DATA ØØ,e7,ØØ,e7,ØØ,e7,Ø5,fb,3b5
79Ø DATA Ø5,Ø5,ØØ,19,ØØ,19,ØØ,19,Ø55
8ØØ DATA Ø7,ØØ,e7,ØØ,e7,ØØ,e7,Øe,2ca
81Ø DATA ØØ,ØØ,19,ØØ,19,ØØ,19,Ø5,Ø5Ø
82Ø DATA fb,fb,ØØ,e7,Ø5,fb,Ø5,Ø5,3e7
83Ø DATA ØØ,19,Ø7,fb,f6,fb,ec,Ø5,3fd
84Ø DATA ec,Ø5,f6,Ø5,Øa,Ø5,14,fb,3Øa
85Ø DATA 14,Ø9,f6,fb,f6,e7,f6,e7,5c8
86Ø DATA f6,e7,19,f6,Øa,19,Øa,19,332
87Ø DATA Øa,19,fb,Øa,Ø7,fb,e7,ØØ,311
88Ø DATA e7,ØØ,e7,14,fb,Ø5,19,ØØ,2fb
89Ø DATA 19,ØØ,19,Ø3,ØØ,f6,Øa,ØØ,135
9ØØ DATA ØØ,Øa,Ø3,ØØ,e7,Øa,ØØ,ØØ,Øfe
91Ø DATA 19,Ø5,Ø1,fb,Ø5,f6,Øa,ØØ,21f
92Ø DATA Ø5,Øa,ØØ,Ø5,18,ac,18,bd,1ad
93Ø DATA 18,dØ,18,dd,18,f2,19,Ø7,3Ø7
94Ø DATA 19,1c,19,31,19,3e,19,4e,13d
95Ø DATA 19,63,19,74,19,81,19,9Ø,24c
96Ø DATA 19,ab,19,ba,19,c9,19,de,37Ø
97Ø DATA 19,ef,1a,ØØ,1a,Ød,1a,22,185
98Ø DATA 1a,37,1a,44,1a,51,1a,66,19a
99Ø DATA 1a,7b,1a,9Ø,1a,a1,1a,ae,2c2
1ØØØ DATA 1a,bf,1a,d4,1a,e5,1a,ee,3ce
1Ø1Ø DATA 1a,f7,3e,Ø1,cd,59,bc,c9,3fb
1Ø2Ø DATA 21,ØØ,9Ø,11,ØØ,ØØ,dd,46,1e5
1Ø3Ø DATA ØØ,7e,87,3c,5f,19,1Ø,f9,2c2
1Ø4Ø DATA 46,e5,fd,e1,c5,16,ff,fd,5eØ
1Ø5Ø DATA 7e,Ø1,5f,fe,7f,3Ø,Ø1,14,2aØ
1Ø6Ø DATA 26,ff,fd,7e,Ø2,6f,fe,7f,4Øe
1Ø7Ø DATA 3Ø,Ø1,24,cd,f9,bb,fd,23,3f6
1Ø8Ø DATA fd,23,c1,1Ø,df,dd,6e,Ø2,41d
1Ø9Ø DATA dd,66,Ø3,dd,5e,Ø4,dd,56,3b8
11ØØ DATA Ø5,cd,f6,bb,c9,Ø6,ØØ,11,363
111Ø DATA af,39,cd,77,bc,21,af,39,3f1
112Ø DATA cd,83,bc,cd,7a,bc,21,e2,512
113Ø DATA 39,36,c3,23,36,cc,23,36,2bØ
114Ø DATA 92,21,4Ø,ØØ,e5,21,ØØ,bb,2b4
115Ø DATA e5,c3,b7,39,e5,21,91,Ø1,43Ø
116Ø DATA 36,ee,23,36,b9,23,36,f7,386
117Ø DATA e1,f1,f3,c9,21,1f,bf,36,4c3
118Ø DATA c3,23,36,ed,23,36,92,c3,3b7
119Ø DATA ØØ,bf,cf,88,88,cd,ea,92,4e7
12ØØ DATA cd,ff,bb,3e,Ø1,cd,Øe,bc,45d
121Ø DATA 21,3Ø,93,11,24,Ød,Ø1,ØØ,127
122Ø DATA ØØ,ed,bØ,21,54,93,11,44,2fa
123Ø DATA Øe,Ø1,ØØ,ØØ,ed,bØ,21,66,233
124Ø DATA 93,11,8c,Øe,Ø1,ØØ,ØØ,ed,22c
125Ø DATA bØ,21,16,95,11,4c,15,Ø1,1ef
126Ø DATA ØØ,ØØ,ed,bØ,c3,ØØ,Ø1,ØØ,261
127Ø '** poke data **
128Ø CLS:PRINT"Initialising.."
129Ø RESTORE 26Ø:c=26Ø
13ØØ FOR x=&9ØØØ TO &9326 STEP 8
131Ø t=Ø:FOR y=Ø TO 7
132Ø READ a$:a=VAL("&"+a$)
133Ø POKE x+y,a:t=t+a:NEXT
134Ø READ a$:a=VAL("&"+a$)
135Ø IF t<>a THEN PRINT"error in
line"c:STOP
136Ø c=c+1Ø:NEXT
137Ø CALL &925A
138Ø RETURN
139Ø '** keyboard input + position
blocks **
14ØØ ORIGIN 5ØØ,Ø,5Ø8,6ØØ,396,2
141Ø x2=2Ø:y2=45:n2=1
142Ø GOSUB 2Ø9Ø
143Ø IF INKEY(9)=Ø THEN 143Ø
144Ø x1=x2:y1=y2:n1=n2
145Ø IF INKEY(18)=Ø THEN 168Ø
146Ø IF INKEY(63)=Ø THEN n2=n1+1
147Ø IF INKEY(71)=Ø THEN n2=n1-1
148Ø IF INKEY(Ø)=Ø THEN y2=y1+4
149Ø IF INKEY(1)=Ø THEN x2=x1+2
15ØØ IF INKEY(2)=Ø THEN y2=y1-4
151Ø IF INKEY(8)=Ø THEN x2=x1-2
152Ø IF INKEY(9)=Ø THEN 163Ø
153Ø IF y2<45 THEN y2=45
154Ø IF y2>4ØØ THEN y2=4ØØ
155Ø IF x2>84 THEN x2=84
156Ø IF x2<2Ø THEN x2=2Ø
157Ø IF n2>35 THEN n2=1
158Ø IF n2<1 THEN n2=35
159Ø IF x1=x2 AND y1=y2 AND n1=n2 THEN
145Ø
16ØØ GOSUB 211Ø
161Ø GOSUB 2Ø9Ø
162Ø GOTO 144Ø
163Ø GOSUB 2Ø9Ø
164Ø GOSUB 2Ø9Ø
165Ø GOSUB 193Ø
166Ø bl=bl+1:IF bl>6 THEN 17ØØ
167Ø GOTO 141Ø
168Ø '** rest of input **
169Ø GOSUB 2Ø9Ø
17ØØ LOCATE 1,8:PRINT"Length ";s
171Ø LOCATE 1,1Ø:PRINT"Is this ok ?"
172Ø IF INKEY(43)=Ø THEN 175Ø
173Ø IF INKEY(46)=Ø THEN h=h-1:ERASE
D:RETURN
174Ø GOTO 172Ø
175Ø f=h:CALL &BBØ3
176Ø GOSUB 2Ø1Ø
177Ø LOCATE 1,12:INPUT"What par ",p
178Ø POKE cdat,p:cdat=cdat+1
179Ø IF h=18 THEN RETURN
18ØØ LOCATE 1,14:PRINT"Another hole ?"
181Ø IF INKEY(46)<>Ø AND INKEY(43)<>Ø
THEN 181Ø
182Ø IF INKEY(46)=Ø THEN h=18
183Ø RETURN
184Ø '** draw screen **
185Ø MODE 1
186Ø MOVE 546,38:DRAWR 1Ø,Ø:DRAW
59Ø,398
187Ø DRAWR -78,Ø:DRAW 546,38
188Ø FOR x=Ø TO 4
189Ø MOVE 42Ø,98+(x*7Ø):TAG:PRINT
1ØØ*(X+1);
19ØØ TAGOFF:MOVE 49Ø,98+(7Ø*x):DRAWR
1Ø,Ø:NEXT
191Ø LOCATE 1,5:PRINT"Hole no."h
192Ø RETURN
193Ø '** store data **
194Ø d(bl,1)=PEEK(&9213+(2*n2))
195Ø d(bl,2)=PEEK(&9212+(2*n2))
196Ø px=x2*9.85:py=y2*4.3
197Ø d(bl,4)=px\256:d(bl,3)=px-
(d(bl,4)*256)
198Ø d(bl,6)=py\256:d(bl,5)=py-
(d(bl,6)*256)
199Ø s=INT((py-183)/3)
2ØØØ RETURN
2Ø1Ø '** poke data into routine **
2Ø2Ø FOR x=1 TO 6:FOR y=1 TO 2
2Ø3Ø POKE
adat,d(x,y):adat=adat+1:NEXT:NEXT
2Ø4Ø FOR x=1 TO 6:FOR y=3 TO 6
2Ø5Ø POKE
bdat,d(x,y):bdat=bdat+1:NEXT:NEXT
2Ø6Ø POKE ddat,bl-1:POKE
ddat+1,75:ddat=ddat+2
2Ø7Ø ERASE D
2Ø8Ø RETURN
2Ø9Ø MOVE x2,y2:CALL &926Ø,x2,y2,n2
21ØØ RETURN
211Ø MOVE x1,y1:CALL &926Ø,x1,y1,n1
212Ø RETURN
213Ø END
```

Thundercats

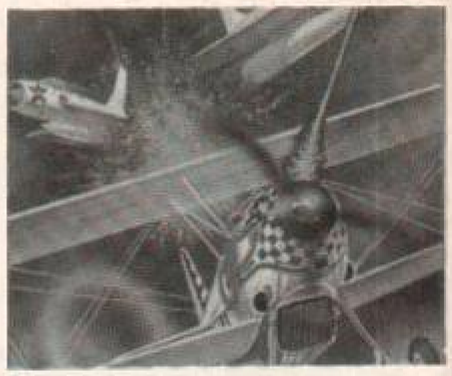
Here's a poke for infinite lives on Elite's Rave game. Use Method 1.

```
1 ' Thundercats - tape
2 ' by GBH
3 ' Amstrad Action Christmas 87
1Ø OPENOUT"!
2Ø MEMORY &7CF
3Ø CLOSEOUT
4Ø LOAD"tcats"
5Ø POKE &8E3,Ø
6Ø POKE &8E4,&BE
7Ø FOR n=Ø TO 13:READ a$
8Ø POKE &BEØØ+n,VAL("&"+a$)
9Ø NEXT
1ØØ CALL &7DØ
11Ø DATA e5,21,ØØ,ØØ,22,33,78
12Ø DATA 22,34,78,e1,c3,d6,69
13Ø END
```



Dr Destructo

Jonathan Adams of Hale has sent in a brief tip which allows to to move to the next level. Pause the game, hold down the shift key and type in "Cave Canem". From now on when ever you pause the game you can press "z" to go to the next level.



Lightforce

Andy Worrall of Bexleyheath has sent in this poke for FTL's shoot-em-up. It gives you extra lives and shields. It's entered using Method 1.

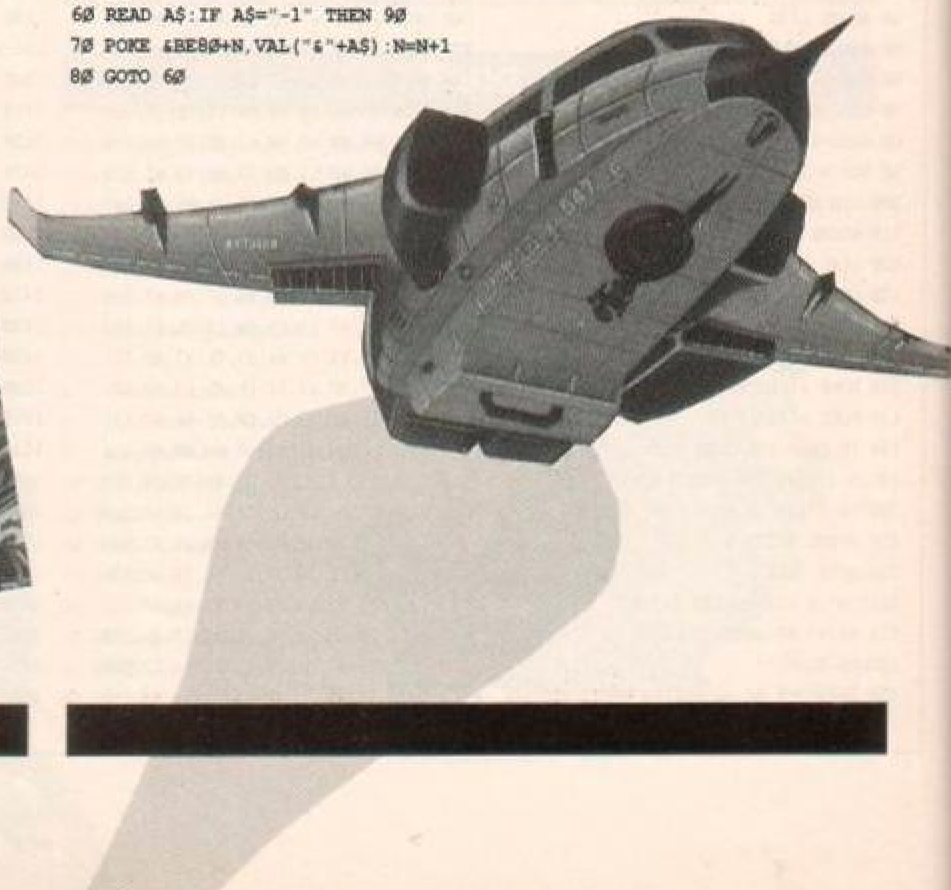
```
1 ' Lightforce - tape
2 ' by Andy Worall
3 ' Amstrad Action Christmas 87
1Ø CLS
2Ø PRINT "Lightforce"
3Ø INPUT "How many lives ?",lif
4Ø IF lif<1 OR lif>255 THEN 1Ø
5Ø CLS:PRINT"Turn on Shield ?"
6Ø a$=INKEY$:IF a$="" THEN 6Ø
7Ø If a$="y" THEN shields=1
8Ø n=&4Ø
9Ø POKE &8Ø,ASC("L")
1ØØ POKE &81,ASC("F")
11Ø READ x$:IF x$="end" THEN 14Ø
12Ø POKE n,VAL("&"+x$)
13Ø n=n+1:GOTO 11Ø
14Ø POKE &58,lif
15Ø IF shields then POKE &62,Ø
16Ø CALL &4Ø
17Ø DATA 21,8Ø,ØØ,Ø6,Ø2
18Ø DATA 11,3Ø,Ø9,cd,77
19Ø DATA bc,21,3Ø,Ø9,cd
2ØØ DATA 83,bc,cd,7a,bc
21Ø DATA 21,85,62,36,Ø5
22Ø DATA 21,c3,65,36,29
23Ø DATA 21,6e,6d,36,26
24Ø DATA 21,1c,96,11,a4
25Ø DATA a9,Ø1,c,8c,ed
26Ø DATA b8,Øe,ff,21,31
27Ø DATA 73,cd,16,bd,c9
28Ø DATA end
29Ø END
```



Mission Genocide

Sudo and **Psycho** of Billingshurst have sent in this poke for infinite lives and invulnerability in Firebird's kill-o-zap game. It's entered using Method 1.

```
1 ' Mission Genocide - tape
2 ' by Sudo and Psycho
3 ' Amstrad Action Christmas 87
1Ø MODE Ø
2Ø MEMORY &85FF:LOAD"!",&86ØØ
3Ø FOR N=Ø TO 12:READ A$
4Ø POKE &8623+N,VAL("&"+A$):NEXT
5Ø N=Ø
6Ø READ A$:IF A$="-1" THEN 9Ø
7Ø POKE &BE8Ø+N,VAL("&"+A$):N=N+1
8Ø GOTO 6Ø
9Ø CALL &86ØØ
1ØØ DATA 21,8Ø,BE,E5,21,4Ø
11Ø DATA BF,11,ØØ,ØØ,C3,A1,BC
12Ø REM INFINITE LIFE
13Ø DATA 21,C7,AØ,36,ØØ
14Ø REM INVULNERABILITY
15Ø DATA 21,B2,AØ,36,C9
16Ø REM LEAVE LINE 15Ø INTACT
17Ø DATA C3,2C,86,-1
18Ø END
```



CLASSIC COLLECTION

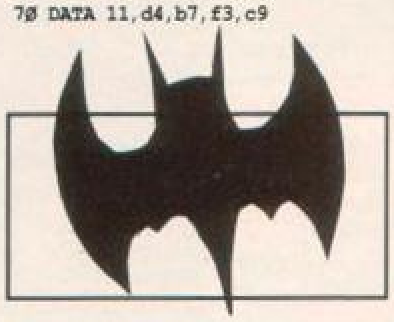
Batman

This poke by **Phil Howard** of Mapperley was used back in issue 11. Use Method 1.

```
1 ' Batman - tape
2 ' by Phil Howard
3 ' Amstrad Action Christmas 87
1Ø DATA 21,9Ø,1c,36,ØØ,c3,ØØ,Ø1
2Ø DATA 21,2d,22,36,d3,21,4Ø,2Ø
3Ø DATA 11,4Ø,ØØ,Ø1,f2,Ø1,ed,bØ
4Ø DATA 21,4Ø,ØØ,e5,21,ØØ,bb,e5
5Ø DATA 21,f2,Ø1,e5,21,Ø7,b8,e5
6Ø DATA 21,bb,Ø2,e5,f1,21,ea,b1
7Ø DATA 11,d9,b1,f3,c9
8Ø MEMORY &2ØØØ
9Ø FOR x=&beØØ to &be34
1ØØ READ a$
11Ø POKE x,VAL("&"+a$)
12Ø NEXT
13Ø LOAD""
14Ø CALL &3a6a
15Ø LOAD"!",&2Ø4Ø
16Ø CALL &beØ8
17Ø END
```

6128/664 owners should change lines 5Ø, 6Ø and 7Ø so that they read:

```
5Ø DATA 21,f2,Ø1,e5,21,1f,b1,e5
6Ø DATA 21,bb,Ø2,e5,f1,21,e5,b7
7Ø DATA 11,d4,b7,f3,c9
```

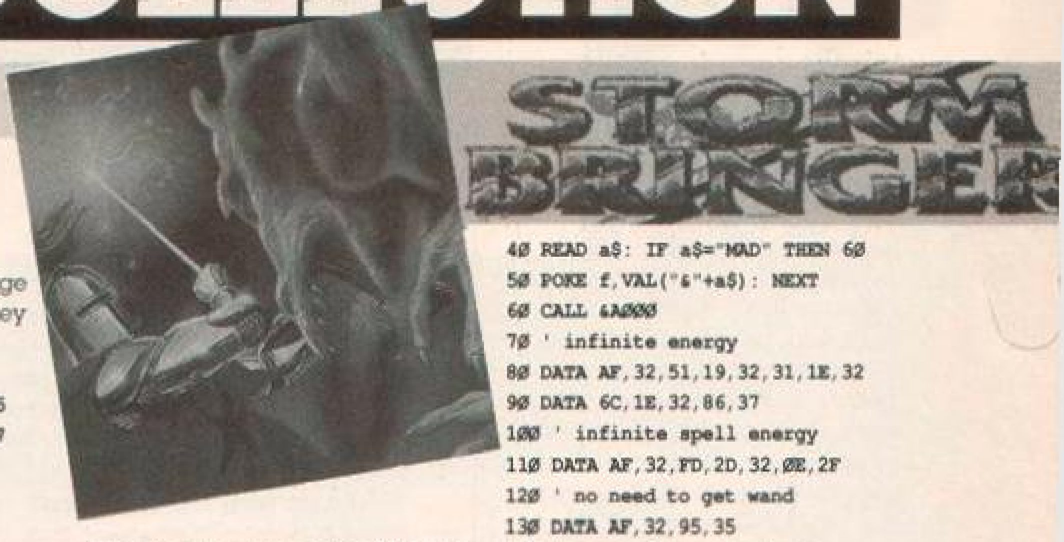




Tim Gilbert of Whitby sent in this poke for the first Magic Knight game which gives you infinite strength and keeps the mirror active all the time. It uses Method 2 and you need to find the block that follows 'SCODE'.

```
1 ' Spellbound - tape
2 ' by Tim Gilbert
3 Amstrad Action Christmas 87
1Ø MEMORY 2969
2Ø FOR t=297Ø TO 3Ø47
3Ø READ a$
4Ø POKE t,VAL("&"+a$)
5Ø NEXT t
6Ø CALL 297Ø
7Ø DATA 18,Ø3,ØØ,ØØ,ØØ,21,ØØ,Øc
8Ø DATA 22,9c,Øb,3e,13,32,9e,Øb
9Ø DATA 11,ØØ,Ø8,3e,16,cd,a1,bc
1ØØ DATA 2a,9c,Øb,11,ØØ,Ø8,19,22
11Ø DATA 9c,Øb,3a,9e,Øb,3d,32,9e
12Ø DATA Øb,2Ø,e5,21,ØØ,a4,11,1d
13Ø DATA Ø3,3e,16,cd,a1,bc,3e,ØØ
14Ø DATA 32,6b,12,32,97,31,32,3f
15Ø DATA 32,3e,1c,32,55,13,3e,4c
16Ø DATA 32,56,13,c3,Ø3,Øc
17Ø END
```





Peter Featherstone of Leeds had a go at the third Magic Knight game in issue 24. His Method 1 poke gives infinite spells and energy. There is no need to collect the mirror or wand. And you can also start on any screen.

```
1 ' Stormbringer - tape
2 ' by Peter Featherstone
3 ' Amstrad Action Christmas 87
1Ø MODE 1: MEMORY &9FFF: LOAD""
2Ø POKE &AØ4D,&8Ø:POKE &AØ4E,&BE
3Ø FOR f=&BE8Ø TO &BFFF
4Ø READ a$: IF a$="MAD" THEN 6Ø
5Ø POKE f,VAL("&"+a$): NEXT
6Ø CALL &AØØØ
7Ø ' infinite energy
8Ø DATA AF,32,51,19,32,31,1E,32
9Ø DATA 6C,1E,32,86,37
1ØØ ' infinite spell energy
11Ø DATA AF,32,FD,2D,32,ØE,2F
12Ø ' no need to get wand
13Ø DATA AF,32,95,35
14Ø ' no need to get mirror
15Ø DATA AF,32,1Ø,19,32,A5,36,32
16Ø DATA C9,36
17Ø ' sets MK's stats to 1ØØ
18Ø DATA 21,64,64,22,E3,41,22,E5
19Ø DATA 41
2ØØ ' start room
21Ø ' change Ø7 in line 23Ø to
22Ø ' a number between ØØ and 34
23Ø DATA 3E,Ø7,32,C7,16
24Ø ' don't remove
25Ø DATA C3,88,13,MAD
26Ø END
```

Tony Hoyle of St Annes sent this poke for the second Magic Knight game back in issue 13. Use Method 1 and it gives you infinite energy and food. It also stops characters from disobeying your commands.




```
1 ' Knight Tyme - tape
2 ' by Tony Hoyle
3 ' Amstrad Action Christmas 87
1Ø INK Ø,Ø:CLS
2Ø INK 1,26:INK 2,11:INK 3,18
3Ø BORDER Ø:MEMORY 4999
4Ø LOAD"!KT$":CALL 5ØØØ
5Ø LOAD"!KTCODE"
6Ø LOAD"!KTGRX",&CØØØ
7Ø POKE &1923,Ø
8Ø POKE &2112,Ø:POKE &2113,Ø
9Ø POKE &2114,Ø:POKE &215C,Ø
1ØØ POKE &29B2,Ø
11Ø CALL 5ØØØ
12Ø END
```

Bosconian

Darren Ash of Highbridge has sent
in this poke for infinite lives. It is entered using Method 1.

```
1 ' Bosconian - tape
2 ' by Darren Ash
3 ' Amstrad Action Christmas 87
10 FOR t=&300 TO &347
20 READ a$:POKE t,VAL("&"+a$)
30 NEXT
40 CALL &300
50 DATA 06,00,21,40,00,11,40,00
60 DATA cd,77,bc,21,40,00,cd,83
70 DATA bc,cd,7a,bc,21,1d,03,22
80 DATA 59,00,cd,40,00,21,2b,04
90 DATA 36,c3,23,36,2b,23,36,03
100 DATA c3,00,04,e5,21,d9,00,36
110 DATA c3,23,36,3e,23,36,03,e1
120 DATA 11,00,b0,c3,2e,04,f5,3e
130 DATA c9,32,bf,37,f1,00,37,c9
140 END
```

Angleball

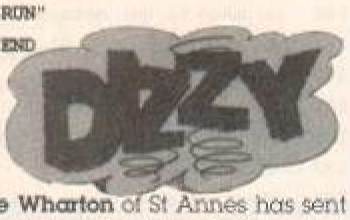
Darren Ash of Highbridge gives you infinite misses in Mastertronic's budget game. Enter it using Method 1.

```
1 ' Angleball - tape
2 ' by Darren Ash
3 ' Amstrad Action Christmas 87
10 FOR t=&FE3 TO &1019
20 READ a$:POKE t,VAL("&"+a$)
30 NEXT
40 CALL &FE3
50 DATA 06,00,21,00,a0,11,00,a0
60 DATA cd,77,bc,21,00,a0,cd,83
70 DATA bc,cd,7a,bc,21,00,10,22
80 DATA 3a,a0,cd,00,a0,e5,f5,21
90 DATA 4a,21,22,c0,23,3e,01,32
100 DATA 92,23,3e,10,32,97,23,32
110 DATA 9a,23,f1,e1,c3,00,20
120 END
```

Parabola

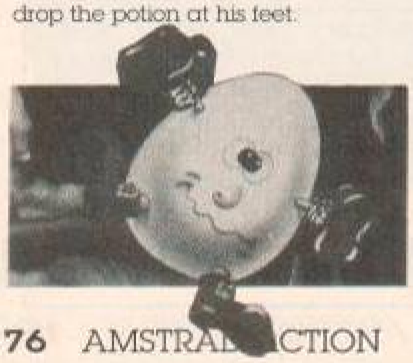
Darren Ash of Highbridge strikes again with a poke for infinite lives on Firebirds budget game. Use Method 1.

```
1 ' Parabola - tape
2 ' by Darren Ash
3 ' Amstrad Action Christmas 87
10 FOR t=&4F TO &74
20 READ a$:POKE t,VAL("&"+a$)
30 NEXT
40 CALL &4F
50 DATA 21,38,bd,36,1b,21
60 DATA 5a,bb,36,c3,23,36
70 DATA 60,23,36,00,c9,e5
80 DATA 21,6b,00,22,61,01
90 DATA e1,cf,fe,93,f5,3e
100 DATA 00,32,14,85,f1,c3
110 DATA 1e,9e
120 RUN"
130 END
```



Steve Wharton of St Annes has sent in some tips for Codemasters arcade adventure.

1) Mucky grease gun - the mine cart.
2) Plastic rain coat - stops rain from killing you.
3) Acme bird seed - kills birds.
4) Clove of garlic - kills birds underground.
5) Graveyard key - opens graveyard door.
6) Insecticide spray - kills spiders.
7) Ghost hunters laser - kills ghosts.
8) A can of 3 in 1 oil - lowers the drawbridge.
9) Gardeners spade - opens ground next to cliff.
1Ø) Mushroom trowel - moves the mushroom underground.
11) Take a purse of gold to the hermits tree house, jump on top of his house to get a cloud with a silver lining.
12) Take a broken heart to the angel.
13) The sharp diamond opens the trapdoor near the crystal mountain.
14) A strong crowbar opens a trapdoor at the bottom of the mountain.
15) The rusty bolt cutters moves the island down the mine shaft.
16) Use the torch to light the fire under the pot.
17) When all of the potion has been taken to the pot, get the empty bottle and drop it on top. You then have the potion. Go to Zaks and drop the potion at his feet.



DRILLER

A playing guide to some of the first sectors of Incentives Mastergame.

A U-turn at the start of the game will point you towards a cube. Shooting this will open up the way into Obsidian.

If you see a large black cross send for a rig to make the sector safe.

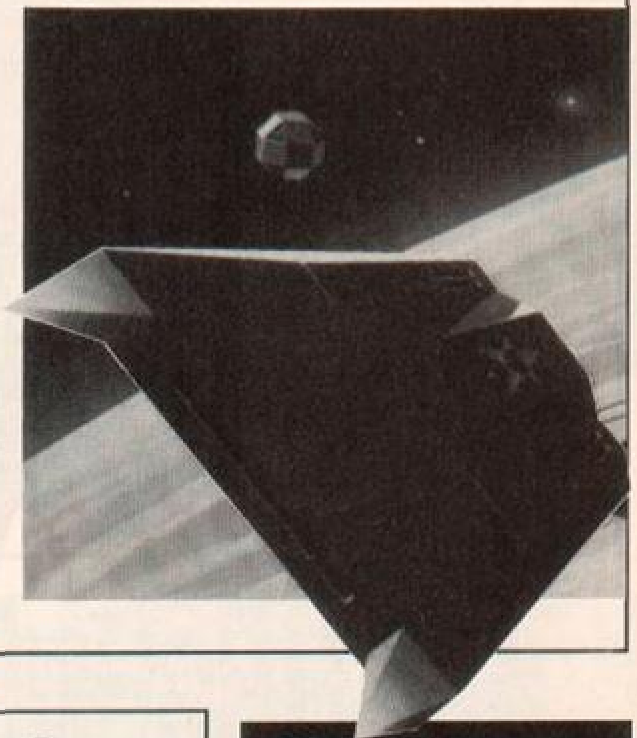
A deep crevasse blocks your way in Obsidian, but a block is the solution.

To go up in the world in Topaz park on the red and white block. Turn until you can see two cubes. Zapping one will send you up and the other will take you back down.

To find the jet is a long explanation. First of all go over the steps in Topaz and then through the door. Three telegraph wires must be shot so that you can enter the building safely. Once inside you will see three shapes upon the wall. Shoot until all three are squares and then leave again. Opposite you will see a doorway. Go through it to Aquamarine.

Shoot the doors to the right hangar and they will open to let you inside. Stop under the reconnaissance jet and rise until you dock. You can now fly around Mitral in the jet.

To return to the probe simply re-enter the hangar and dock with the probe.



Wizball

Matthew Cooper of Fetcham has sent in some playing tips for Ocean's Mastergame.

Your first priority is to get better control of the Wizball. To do this you must collect and waggle twice until the first icon stops flashing.

Get Catelite as your next priority because without him you can't complete the game.

Don't bother with the smart bomb because it is virtually useless.

The right hand cauldron shows you which colour you must collect on the level. The required mixing is as follows:

	%Red	%Green	%Blue
Red	1ØØ	Ø	Ø
Green	Ø	1ØØ	Ø
Blue	Ø	Ø	1ØØ
Cyan	Ø	5Ø	5Ø
Magenta	5Ø	Ø	5Ø
Yellow	5Ø	5Ø	Ø
Orange	75	25	Ø
Brown	25	5Ø	25
Lt. Blue	25	25	5Ø
Pink	5Ø	25	25

On the bonus screens keep replenishing your shields so that you survive longer. Move Catelite around Wizball so that he is encircled and protected.

x



Batty

Darren Ash of Highbridge has been busy this month and this poke gives you a choice of infinite or extra lives on Elite's Hit-Pak 2. Method 1 is the one to use.

```
1 ' BATTY (Hit-pak II) - tape
2 ' by Darren Ash
3 ' Amstrad Action Christmas 87
10 MODE 0 :BORDER 0
20 MEMORY &1300
30 FOR t=0 TO 15 :READ a
35 INK t,a: NEXT t
40 DATA 0,26,13,10,11,2,3,6
45 DATA 15,9,18,17,24,20,8,1
50 LOAD"!pic",&C000
60 LOAD "!a",&4268
70 MODE 0
80 POKE &432B,No of lives(0-255)
90 POKE &4518,0:' inf lives
100 FOR t=0 TO 15:INK t,0:NEXT t
110 LOAD"!b",&C000
120 CALL &4268
```

How to win an ENTIRE ISSUE'S rave software!

If you want to win an ENTIRE issue's Rave software, including the Mastergame, then all you have to do is produce an excellent poke, playing tips or map.

The best entry each month will win a copy of every Rave and the Mastergame from the issue in which they are printed. The number of games will vary of course, but it should be at least five. In a good issue it may even get into double figures. We also give five runner-up prizes every month of a Rave or the Mastergame in that issue.

We've now cleared our backlog of Cheat Mode material, so if you've been holding off sending us your latest gems then hesitate no longer. There are glorious prizes at stake and all contributions should be promptly printed from now on.

Phil Howard wins the Mastergame and all the Raves for his *Leaderboard* and *Freddy Hardest* pokes. The five runners-up are **Steve Wharton** for his *Dizzy* tips, **Matthew Cooper** for his *Wizball* tips, **Michael Swain** for his *Thrust II* poke, **Andy Worrall** for his *Lightforce* poke **Darren Ash** for his pokes.

THE PILGRIM

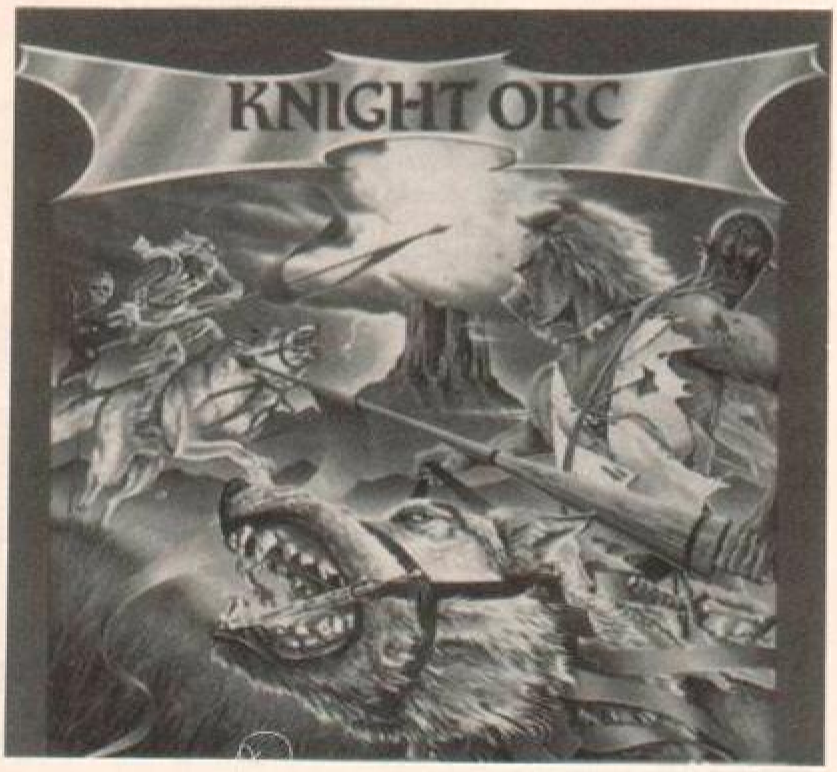
Boldly rambling where no man has ambled before, the Pilg strides into the latest releases from Level 9 and Martech. From Level 9 there are two eagerly awaited magical romps. First there's Knight Orc and then Gnome Ranger, the debut for Ingrid Bottomlow. Plus Slaine, the Professional Adventure Writer, bumper Lords and Ladies, and much, much more.

Knight Orc

Level 9/Rainbird £14.95 cassette £19.95 disk

Amstrad owners have been eagerly awaiting this latest Level 9 release for quite some time now, in particular because it boasts Level 9's new programming system that features powerful interactive character processing. After a long wait, *Knight Orc* is just about to hit the shelves. What's it like?

The game comes with a chunky 36-page booklet, giving playing instructions and presenting a short "novella" about Grindleguts the Orc, a



rather disgusting anti-hero whose identity you assume during the game. As usual with Rainbird products the packaging is excellent and cannot be faulted.

Nor can the adventure system Level 9 have come up with. Despite the ability of earlier Level 9 parsers to decipher complex commands, games like *The Price of Magik* had one glaring omission - the inclusion of convincingly programmed, computer controlled-characters. The Austins have always maintained that 8-bit machines do not offer sufficient memory or processing power for proper character handling, but while they obstinately stuck to their guns, other companies (Infocom in particular and Melbourne House are obvious examples) were introducing characters left, right, and centre.

Enter the new system, which not only allows you to address NPCs (non-player characters) but also provides a number of useful high-level commands (see box) that can make interaction quite complex. The WAIT command is a good example - simple enough, it allows you (or an NPC) to do nothing for a specified number of game turns. This means that you can orchestrate the actions of different characters, ensuring that they carry out your orders at the right moment. So to kill a particularly vicious troll, you might enter:

DRAGON, WAIT 2, GO NORTH, KILL TROLL
GROK, WAIT 1, GO NORTH, KILL TROLL
GO NORTH, KILL TROLL

...the last command taking you north with the other two and all of you attacking the unfortunate troll at once.

High-level language

As well as interactive characters, Level 9 have introduced a number of other high-level features into their new system, giving the player a particularly flexible and friendly environment to play in.

One of the most useful commands is FIND. You can use it to find objects in the game, whether these be ordinary objects, objects inside objects, or even other characters. This means you can send other characters off on their own to carry out certain actions and then rendezvous with you at a later date, as in:

GROK, FIND DRAGON, KILL IT, THEN FIND ME

...although in this case Grok is unlikely to return! This command structure enables you to get on with something else while your allies carry out your errands.

Other new high-level commands include FOLLOW, GO TO, and RUN TO. The latter is the same as GO TO, but does not print object locations as you move to your indicated

Disk or tape?

The disk version of *Knight Orc* has some very attractive graphics if you're prepared to shell out the extra £5. They have been "hand-digitised" and Arnold owners should smirk with glee when I tell them that they look every bit as good (if not better) than the Atari ST version. Watch out, though - you'll need either a 6128 or a 464/664 plus drive plus ram expansion to run the program.

Tape owners have to make do with text-only, unfortunately. But the tape version will run on any CPC without trouble. To be honest, you don't miss much not having the graphics. They may look good, but you'll be switching them off long before you've finished the game, so you shouldn't pine for them if you're restricted to tape only.

Another very useful command is FIND. You can use it to find objects in the game, whether these be ordinary objects, objects inside objects, or even other characters. This means you can send other characters off on their own to carry out certain actions and then rendezvous with you at a later date, as in:

Atmosphere	79%
Interaction	89%
Challenge	90%
Overall	84%

GROK, FIND DRAGON, KILL IT, THEN FIND ME

...although in this case Grok is unlikely to return! This command structure enables you to get on with something else while your allies carry out your errands.

Other new high-level commands include FOLLOW, GO TO, and RUN TO. The latter is the same as GO TO, but does not print object locations as you move to your indicated destination. To all this you can add the usual Level 9 competence in handling your inputs and treating them with wit and dignity throughout the game.

The body-blow, however, is that the Pilgrim didn't really get on too well with *Knight Orc*. First, I'm growing a little tired of Middle Earth-type scenarios. Orcs and trolls were all the vogue when I started playing adventures, but that was a long time ago and since then companies like Activision, Infocom, and Delta 4 have taught me that not everybody in an adventure need have hair between the toes.

Magic in Gnome Ranger

The Austins have introduced a novel twist to the usual magic routine in this game - re-usable, multi-purpose potion ingredients.

The idea is that any potion (and you'll find a long list by reading the various books in the alchemist's house) can be concocted from four ingredients. There are a number of different herbs and objects to be found in the game that can be used here and each one has four different attributes: texture, smell (or taste), colour, and form. Thus you might have a smooth, bitter, blue fruit or a rough, sweet, red berry.

Since the potions require not a specific herb but a specific combination of attributes, you may find more than one way of cooking up magic. However, the recipes for potions are not always easy to interpret and you may also find yourself having to manage your ingredients carefully in order to have the right ingredients for the right spell at the right time.

Secondly, *Knight Orc* has a very tortuous scenario. It isn't until later stages of the game that you have any idea at all what's going on. The truth (without giving too much away) is that there are actually TWO games going on simultaneously, but the question of whose playing what is not easy to answer. The Pilg likes to know where he is in a game, and to have a specific challenge (or challenges) to tackle, otherwise I spend a lot of time wandering around wondering what on earth I should be doing. However, I should stress that this is a very personal viewpoint - others may relish the uncertainty of it all.

The third reason is a lot more serious. Having introduced characters into the game, Level 9 have gone right over the top and included *far too many*! If you've ever played MUD on a crowded evening, you'll know what it's like when all the treasure disappears in seconds and you can't move five inches without being challenged, robbed, or otherwise molested. *Knight Orc* suffers from this confusion badly. In fact, you'll find the opening stages very similar to playing MUD. The resemblance is quite intentional, but this time *you're* the mobile and everyone else is human!

The game comes in three parts, Loosed Orc, A Kind of Magic, and Hordes of the Mountain King. The first section is simply an introduction to the new system - you have to find several objects that can be tied together to make a rope. If I tell you that one of these can be found simply by typing FIND ROPE you get some idea of the challenge involved. The second two parts are far more challenging, but you can move between them at will so they are in effect one game.

The most difficult puzzles to crack are those involving several characters and one or two of these are very taxing indeed. Otherwise the game has a slightly empty feel about it - there are a large number of locations but the bulk of them are extremely briefly described, the idea being that you will simply be GOing from one interesting place to another and not paying much attention to what happens in between. Not the Pilg's cup of tea - I like to wander about viewing the scenery, even if there isn't much to do there.

In conclusion then, a system that promises very well for the future (see the *Gnome Ranger* review that follows) but the game itself presents are rather dated scenario and failed to raise my adrenalin levels as much as I'd hoped.

Atmosphere	80%
Interaction	90%
Challenge	82%
Overall	85%

Gnome Ranger

Level 9 £9.95 cassette £14.95 disk

It's a little embarrassing, one would have thought, for Rainbird that the delay over releasing *Knight Orc* should have led to a situation where a later, better game is released for £5 less. Such is the case, however, as Level 9 move away from their co-publishing deal with Rainbird (amicably, I should add, and not necessarily permanently) to release their first "own-brand" game since *The Price of Magik*.



Gnome Ranger presents a marked improvement over *Knight Orc*. First, the game scenario is clearly defined from the start. Second, the locations are better described. Third, the atmosphere within the game is less chaotic than its predecessor. There are fewer characters but everyone you meet is significant in some way or other. Furthermore, the characters have more life to them and appear as more convincing personalities within the game.

The story-line follows the adventures of Ingrid Bottomlow, a female gnome, who has been banished from home by her exasperated family. At least, we assume that this is so - Ingrid certainly has an officious side to her nature that would render her liable to banishment in any normal family. The "faulty" teleport scroll that dumps her outside a small shop in the middle of unknown territory sounds a little too good to be true...

Your challenge, then, is to go home. But instead of just setting out along the high-road, you find yourself embroiled in a number of personal problems. Ingrid being the sort of gnome she is, I should add that these are other people's personal problems, but this doesn't stop you from getting deeply involved.

The game falls into three sections and unlike *Knight Orc* you can't move between them at will. In section one you must reunite a gnymph with her lover, rescue a furry friend, find some filthy lucre, and finally rid the land of a witch who runs a small business based on stone gnomes. Succeed in cracking all these puzzles (and a couple more) and you'll be carried shoulder-high into the next section.

Atmosphere	89%
Interaction	48%
Challenge	65%
Overall	60%



Section two is quite different.

Whereas the first part of the game had you bringing people together, the second part puts more emphasis on magic and herbs. You will need the help of a number of different personalities to find and properly use the various herbs required to create a potion capable of reviving an alchemist's tea plant (which you have accidentally damaged).

The third section presents yet another theme, this time involving various warring factions whom Ingrid must reconcile. The Fire People and the Ice People face each other in this final part, thus concluding the game's overall theme of Animal, Vegetable, and Mineral. Throughout the adventure the player will, as in *Knight Orc*, have to befriend or otherwise recruit the assistance of a number of characters in order to achieve his/her aim.

I have only two reservations about *Gnome Ranger*. The first is the continued fantasy scenario. It's a long time since we saw a game from Level 9 that was neither science fantasy nor Middle Earth antics. *Lords of Time*, although long ago, seems like a breath of fresh air in retrospect. My second quibble with the game is that it is very slightly "twee". It isn't an adventure that's going to get your pulse racing; it may amuse but will never give you hysterics; it will puzzle you but never confound you. In short, it's a rather middle-of-the-road game, albeit an improvement in style over *Knight Orc* and in programming over previous releases.

Peter Austin tells me that he's currently researching a game for Level 9 based on the Arthurian legend. Now THAT sounds like a game with muscle, magic, and passion. Watch this space...

Slaine

Martech £9.99 cassette £14.99 disk

This is a very attractive game indeed, with an unusual display, excellent graphics, and a very original gameplay system. It's also rather frustrating to play, has limited command options, and will almost certainly not appeal to people used to traditional adventuring.



Slaine is the excellent Celtic warrior-king featured in 2000AD. Although not as well-known as Judge Dredd, the strip he features in is very original in conception with superb artwork and very strong story-lines. It's certainly one of the Pilg's favourite 2000AD features, so naturally I was keen to see what Martech had come up with.

Certainly the originality of the programming and the quality of the graphics both do justice to their source of inspiration. The screen is divided into three main areas, a small text window; an options window across which the various command options scroll rapidly; and a graphics display area where cameo shots of your location, your companion Ukko, your possessions, and sometimes other characters are attractively windowed.

The problem with the game is two-fold: limited options and poor control. The limitation of options is not in itself so serious - we've become used to this in games like *Heavy on the Magik* - but if you do limit the

PAWs for applause...

Pat Winstanley, ex-editor of Adventure Contact and regular columnist in our sister magazine ACE, checks out the *Professional Adventure Writer (PAW)* from Gilsoft. Home brew games will never be the same again...

Gilsoft hit the adventuring headlines several years ago with the introduction of *The Quill*, then as time passed they introduced a whole range of "add-ons" (e.g. *Illustrator*, *Patch* and *Press*). Now Gilsoft have revamped the range, rewriting it, integrating the various bits and pieces into one package and adding refinements which make it the best system on the market for Amstrad disc machines.

Running under CP/M, *PAW* consists of a compiler and an interpreter. Unlike other utilities, *PAW* allows you to write your code and text using an ordinary word processor, which makes editing a doddle. The compiler is then used to link all your ASCII source files together and produce another file which in turn is interpreted to produce either a test version or a runnable game.

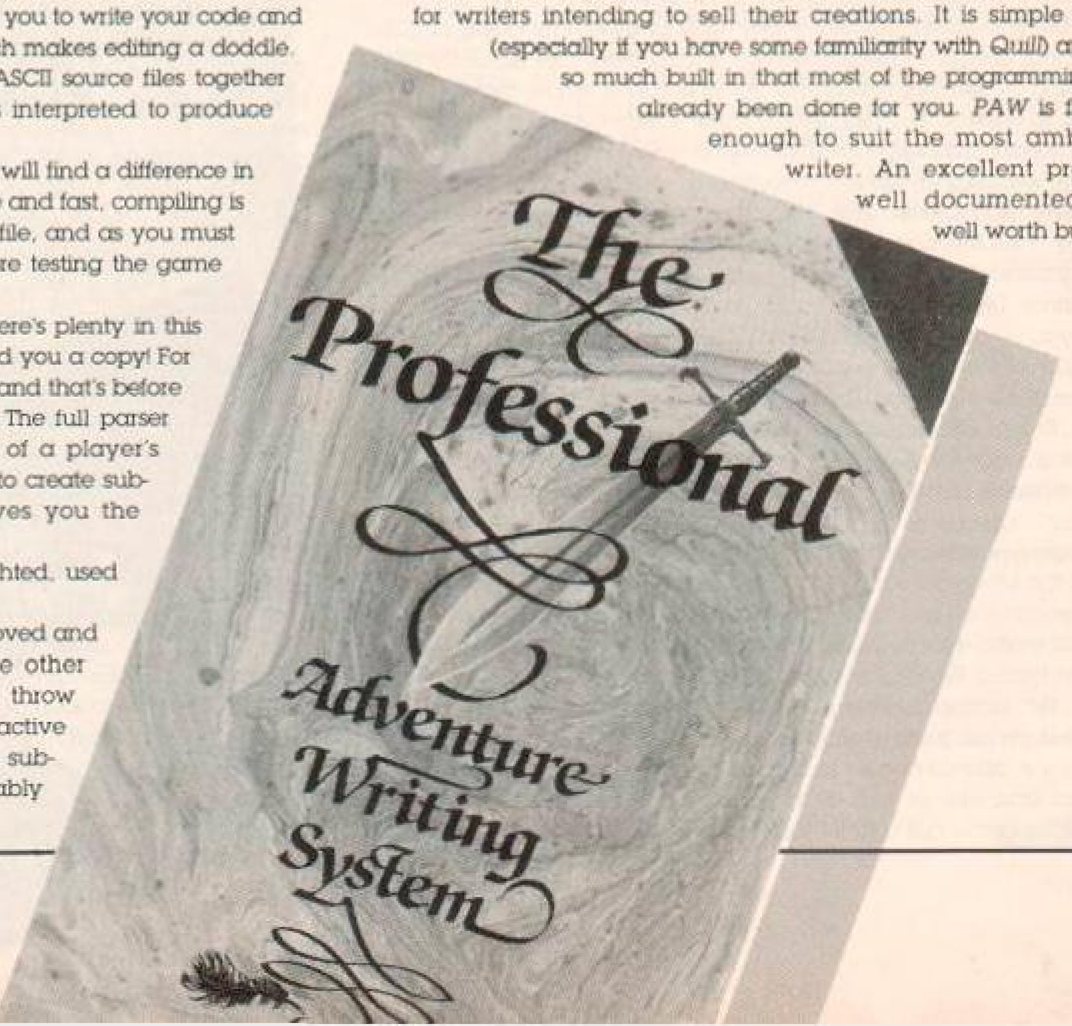
If you've used *Quill* or *GAC* before you will find a difference in the handling of *PAW*. While editing is simple and fast, compiling is rather slow.. about three minutes for a 30K file, and as you must compile all the source files every time before testing the game things can become rather tedious.

Still beggars can't be choosers, and there's plenty in this package to have you begging Gilsoft to send you a copy! For a start the available memory is around 60K and that's before you use the 40% text compression system. The full parser which recognises nine significant words of a player's command is outstanding, while the ability to create sub-routines within the condition tables gives you the flexibility to do virtually anything you like.

Each object can be individually weighted, used as a container, automatically taken, dropped, worn or removed and a "doall" command allows you to create other automatic routines to suit your game (e.g. throw everything at the advancing army!). Interactive characters are simple to create using the sub-routine facility - you can even set up reasonably complex conversations!

As for text handling, life couldn't be simpler! Any word processor which creates ASCII files can be used, but Gilsoft have thoughtfully provided a simple text editor which is ideal for small adjustments to syntax etc when the compiler throws up an error. The best thing is that code is edited in this way too! Text size (e.g. messages and locations) for a particular entry is unlimited, bound only by the overall memory available. Who needs graphics? If you're a graphics buff though, these are possible using the EXTERN facility which allows you to patch in your own routines, and opens up tremendous possibilities.

PAW also runs on the PCW machines, providing an extra market for writers intending to sell their creations. It is simple to use (especially if you have some familiarity with *Quill*) and has so much built in that most of the programming has already been done for you. *PAW* is flexible enough to suit the most ambitious writer. An excellent product, well documented and well worth buying!



THE OFFICIAL AMSTRAD USER CLUB

AMSTRAD USER CLUB *It pays to belong!*

AMSTRAD USER CLUB *It pays to belong!*

AMSTRAD USER CLUB *It pays to belong!*

▲ AMSOFT AND MORE ... DIRECT TO YOUR DOOR. ▲
JOIN THE CLUB ... SCOOP THE SAVINGS

BY JOINING the Official User Club you can buy a whole range of new software at fantastically low prices to make your Amstrad even more versatile and useful than ever.

By taking advantage of the savings you will recoup your membership fee in only weeks! Look what else you get:

- ▲ The widest range of branded Amstrad approved products stocked in depth all at substantial discounts.
- ▲ HELP HOTLINE for any technical advice you need.
- ▲ 12 MONTHS FREE subscription to Amstrad Computer User magazine
- ▲ 24 hour telephone ordering facility.
- ▲ FREE monthly newsletter, packed with hints, tips and reviews.
- ▲ Exclusive products for club members.
- ▲ Privileged previews of new products.
- ▲ Big prize competitions.
- ▲ Products delivered direct to your door.

CLUB MEMBERS ALWAYS SAVE

▲ CPC OWNERS ▲

We always have in stock a large selection of products at highly competitive prices including, the complete AMSTRAD range, dozens of ARNOR products, the Top 20 games, plus a huge catalogue of bargain games, and exclusive special offers at discount prices.

▲ HARDWARE & UTILITIES ▲

When it's time to widen your computing horizons–the club has printers, modems, leads, interfaces and complementary software at incredible discount prices.

RING FOR DETAILS

FREE

INTRODUCTORY GIFT

When completing your application form below, please state your machine type and choice of ONE free gift from the following list which we will despatch along with your exclusive membership 'Welcome Pack.'

1. Two superb mystery tape based games
2. One superb mystery disc based game
3. One blank disc
4. Ten blank cassettes (for 464 only)
5. One general CPC computer cleaning kit
6. One CPC 464 cleaning kit

ORDER ACTION LINE – DIAL 091-510 8787 NOW!

For extra-fast attention, order now by phone quoting Access or Visa number.
Or fill in the coupon below and send to the
OFFICIAL AMSTRAD USER CLUB, ENTERPRISE HOUSE, P.O. BOX 10, ROPER STREET,
PALLION INDUSTRIAL ESTATE, SUNDERLAND SR4 6SN

▲ HOW TO JOIN THE CLUB ▲

Simply fill in the coupon and return it to us at the address shown together with your remittance. We'll send you your exclusive membership discount card, a 'Welcome Pack' and your FREE Introductory Gift.

FOR OFFICE USE ONLY

Yes, I want to enjoy the benefits of Amstrad User Club Membership - please enrol me today. I enclose cheque/P.O. for £19.95

My choice of FREE gift is: ....
(please write description)

Machine Type ....

Please send all details to: ....

Name: ....

Address: ....

....

Postcode: .... Telephone No.: ....

ACCESS/ VISA: [| | | | | | | | | | | | | | |]

Expiry date: [|] : [|]

All offers subject to availability; all prices correct at time of going to press

· POST TO ·
· OFFICIAL · AMSTRAD · USER · CLUB
ENTERPRISE HOUSE · PO BOX 10 · ROPER STREET ·
PALLION INDUSTRIAL ESTATE · SUNDERLAND · SR4 6SN

AMSTRAD USER CLUB *It pays to belong!*

AA/KP/1/88



MASTERS OF THE UNIVERSE HAS COME TO LIFE!!
• Now you can live it, as the conflict between good and evil continues •
Masters of the Universe, the Movie, brings to life the deadly, eternal conflict between good and evil. Masters of the Universe the computer game of the film allows you to control the forces of good to do battle with the forces of evil, the prize being the KEY to time travel and with it the title Master of the Universe.
Slipping through a vortex in time the KEY has fallen into the hands of an unsuspecting American college student.
Little does he realise the awesome power he holds. Thinking it to be a musical instrument he fails to realise that every note he plays attracts the ruthless Skeletor and his develish army led by the frightening powerful Evil-Lyn. With the key in their possesion who can stop them escaping downtown America and returning to create chaos in Eternia? Only one man can save earth from this evil domination as HE MAN meets Skeletor in the battle for Eternia, the final chapter that will seal the fate of mankind forever.
AMSTRAD
£9.99
Cassette
£14.99
Disk
SPECTRUM
£7.99
Cassette
CBM 64/128
£9.99
Cassette
£14.99
Disk
ATARI ST
£19.99
MASTERS OF THE UNIVERSE ™
The Movie
GREMLIN
Masters of the Universe and associated characters are trademarks owned by and used under license from Mattel, Inc. © Mattel Inc. 1986. All Rights Reserved.
Gremlin Graphics Software Limited, Alpha House, 10 Carver Street, Sheffield S1 4FS Tel: 0742 753423

player's scope than you have to give him something in return, either greater playability, arcade action, or tremendous game size. *Slaine* offers only pretty graphics.

This on its own wouldn't be too bad, but then there's the problem of control. The software designers claim that the options scrolling oh-so-rapidly across the window are representing various alternatives flitting





through *Slaine*'s (apparently very limited) imagination. To act on any of these, whether it be to examine, to attack, or simply to move involves moving a severed-hand icon (striking but difficult to position accurately) over the required option and "clicking" on it before it disappears again. It takes you about an hour before you're really adept at doing this, but by this stage you've also started wondering why on earth they bothered to introduce such a clumsy control method.

The truth is that underneath the complex (and admittedly very attractive) exterior lies a game that is difficult to control and is, at heart, a fairly simple search and destroy scenario. If you've got the patience to overcome initial frustration it should keep you busy for quite a while, but don't expect too much - the combat is pretty uninteresting, the character interaction extremely crude, and the command options limited. At ten quid on tape it's not exactly cheap either. A Christmas present to keep you occupied, no doubt, but I'm not sure that it makes for a deeply satisfying New Year.





Infocom Disaster!

Rod and Staff Monthly

A Newsletter for Wanderers

Edited by the Pilgrim Price: Free to All Followers of the Straight and Narrow Path

Issue 1

The unthinkable is about to happen. Activision are debating the future of Infocom releases for the CPC range, and state that future titles will "probably not" be released for Arnold owners.

Quite frankly, the Pilg is stunned at the news. I will do my best on your behalf, but you can help too by writing in to the Pilg supporting a petition to Activision. I will then enclose your letters with my own and we will see if either Activision can be made to change their mind, or some alternative can be found.

The situation is even more distressing than might otherwise be the case since Infocom are at present expanding their range rapidly, and are also experimenting with different styles. The Pilg has recently played three games, *Beyond Zork*, *Plundered Hearts*, and *Nord and Bert Couldn't Make Head Nor Tail Of It*, each of which is new, exciting, and totally enjoyable. Send in your letters of protest NOW. We shall overcome!

Ripper Wrangle

CRL have been exploiting our fascination with the horrific ever since they released Dracula. Now they've really gone too far with St Brides' *Jack*

the Ripper. The game features digitised graphics of mutilated women, some of which are really quite outrageously gory.

To add insult to injury, CRL sent the game to the British Board of Film Censors (as they did with *Dracula* and *Frankenstein*) and it has received an "18" certificate. This, of course, doesn't seem to have stopped the company sending review copies to computer magazines, many of whose readership is under 18.

The legal situation regarding home computer software is currently unclear - what do readers think about the subject? Should programs like this be subject to censorship and if so how should that control be applied? Do we really want to see graphics like this in our games?

The Pilg asked Guy Spooner of CRL what he thought about the game. Naturally, he was eager to point out that he felt its quality and theme were deserving of a wide audience. I then asked him if he would like to see more games of this nature come on the market. Let's give the man his due - at that point his unthinking support of a tasteless product wavered somewhat..."I don't think the subject should be further exploited" he said, in a tone indicating that perhaps this time the company had gone too far. They have. Come on CRL - you must have sufficient talent to succeed in the market without relying on sensationalism. If you haven't, then why lower the tone for the rest of us?

Great Whopping What?

Big Great Whopping Ginormous Dragons, that's what. This is the title of a forthcoming release by a small independent company called Visual Dimensions. Watch this space...

Pilgrim's Post

No!

"...I am very interested in marketing an adventure from the home, but I am afraid of getting a lousy review. So if I sent a game, could you send a copy of the review to me before publication and it it was lousy could I then ask you not to print it?"
Simon Forrester, Leicester

Good try, Simon, but what you're really asking the Pilg to do is test your games for you and provide you with a written report on them! My rates are very reasonable for this service (about £1000 an hour) but I suggest that a better thing to do would be for you to join an adventure club. How about Adventure Probe? Although not a club as such, you might find other gametesters through its pages. The address is 78 Merton Road, Wigan, WN3 6AT. Even more suitable would be a magazine called Adventure Contact, but this has recently changed hands and I don't have an address for it. Can anyone help?

Pure cheek

"...Many thanks for the magnificent adventure column, it beats all others, especially that really naff column in ACE (who is that impostor anyway?)...Now, the main point of my letter - clue sniffing, or the lack of it! Yes, it must be said that the afore-mentioned feature has diminished in size of late - is this going to be the trend?"
Neil Selwyn, Wareham

No, Neil, it isn't. However, one way to ensure a larger Clue Sniffing section is for readers to send in more tips. Come on lads and lasses! Where are all these glue gobbets? As for ACE, what are you trying to do? Drive me to schizophrenia? It's hard enough writing two columns,

completed *Colossal Adventure* in just over a week, suffering a severe attack of Caveitis...My next purchase was *Souls of Darkon* (Definitely not on the Ten Games Worth Trying list. Pilg). I snapped this up at a local newsagents and soon found that the program devoted most of its energies to displaying "I don't understand" messages. A helpful cluepot would be nice. I know you reported in your brill column that this game was a bit unfriendly but sometimes I don't listen to even he who hath traversed the unknown..."
Joanne McPhail, Pontypridd

without people like you telling me that one's written by an impostor. If this goes on, the Pilg will soon end up in a strait-jacket...

More cheek

"...Who are you?"
Simon Brann, Birmingham

After Neil Selwyn's letter, this is really the last straw. Someone call a doctor, please.

Caveitis

"...I'm pretty new to the adventurers band, although I've been reading your column since '85. I only plucked up courage (£12 worth) to try an adventure after your article Ten Games Worth Trying in the August issue.

Jewels of Darkness turned out to be worthy of my month's dash. I completed *Colossal Adventure* in just over a week, suffering a severe attack of Caveitis...My next purchase was *Souls of Darkon* (Definitely not on the Ten Games Worth Trying list. Pilg). I snapped this up at a local newsagents and soon found that the program devoted most of its energies to displaying "I don't understand" messages. A helpful cluepot would be nice. I know you reported in your brill column that this game was a bit unfriendly but sometimes I don't listen to even he who hath traversed the unknown..."
Joanne McPhail, Pontypridd

The Pilg will try to rustle up some clues for Souls of Darkon *for the next issue. Just goes to show what happens to those who ignore the advice of the Peripatetic One.*

Lords and Ladies of Adventure

Here they are again, and welcome Steven Ward and Daniel Finlay to the most prestigious column in Adventureland. Daniel in particular deserves a mention – he works on an oil rig in the north sea (see Pilgrim Post), so your pleas for help may soon be speeding across the ocean via helicopter.

Don't forget when you contact the Lords and Ladies to enclose a self-addressed envelope if you're writing, or if you're phoning to keep your calls to sociable hours.

Adventure Quest, Apache Gold, Arnold Goes to Somewhere Else, Boggit, Bored of the Rings, Brawn Free, Castle Blackstar, Castle of Skull Lord, Classic Adventure, Colossal Adventure,Crystal Theft, Dodgy Geezers, Dracula, Dugeon Adventure, Dugeons, A, A 'n' Everythin, Emerald Isle, Erik the Viking, Escape from Khoshima, Espionage Island, Fantasia Diamond, Forest at Worlds End, Heroes of Karn, Hobbit, Imagination, Inca Curse, Jewels of Babylon, Kentilla, Lords of Time, Message from Andromeda, Mindshadow, Mordon's Quest, Necris Dome, Never Ending Story, Price of Magik, Project Volcano, Qor, Questprobe, Red Moon, Return to Eden, Seabase Delta, Seas of Blood, Smuggler's Cove, Snowball, Souls of Darkon, Spytrek, Subsunk, The Trial of Arnold Blackwood, Vera Cruz Affair, Very Big Cave Adventure, Warlord, Wise and Fool of Blackwood, Worm in Paradise.
Joan Pancott. Tel 0305 784155 - Any day - Noon to 10 pm 78 Radipole Lane, Weymouth, Dorset DT4 9RS.

The Boggit, Imagination, Subsunk, Seabase Delta, Aftershock, Wildbunch, Sydney Affair, Message From Andromeda.
Christopher Muff, 49 Renway Road, Broom Valley, Rotherham, S60 3EU.

Imagination, Subsunk, Seabase Delta, The Experience, Treasure Tunnels, The Dungeon, The Amethyst, The Alchemist, Stryptische, Emerald Isle, Forest At Worlds End, Spell Bound.
Paul Nicholls, 23 Stockfield Avenue, Hoddesdon, Herts EN11 9JE.

Cursed by the City, Dracula, Dungeons, Amethysts, Alchemist 'n' everythin', Escape from Khosima, Espionage Island, Fantasia Diamond, Forest at Worlds End, Gremlins, Haunted House, The Hermitage, Heroes of Karn, Hunchback the Adventure, Imagination, Inca Curse, Jewels of Babylon, Kobyashi Naru, Lords of Time, Mansion, Message from Andromeda, Mindshadow, Monsters of Murdac, Mordens Quest, Mountains of Ket, Nova, Never Ending Story, Nythyhel, Planet of Death, The Pawn, Rebel Planet, Robin of Sherwood, Robicide, Seabase Delta, Sharpes Deeds, Ship of Doom, Souls of Darkon, Spytrek, Subsunk, Theseus, Top Secret, Very Big Cave Adventure, Warlord.
G.L Wheeler, 2 Burford Close, Southdown, Bath, Avon BA2 1JF. Tel between 10 am and midnight, 0225-26919.

Forest at World's End, The Experience, Message from Andromeda, Top Secret, Heroes of Karn, Escape from Khosima, Jewels of Babylon, Warlord, Mountains of Ket, Dungeons Amethysts Alchemists and Everything
Daniel Finlay, BP Pet Dev Ltd, c/o Sea Explorer, Farburn Industrial Estate, Dyce, Aberdeen

Never Ending Story, Spytrek, Message from Andromeda, forest at Worlds End, Imagination, Wild bunch, Seabase Delta, Subsunk, The Experience, Heroes of Karn, Red Moon, Apache Gold, Gremlins, Bored of the Rings, Dungeons, Amethysts, Alchemists and Everything, Khobyashi Naru
Steven Ward, 30 Oates Avenue, Rawmarch, Rotherham, S Yorks, S62 5DH

Red Moon, Bugsy, Escape from Koshima, Price of Magik, Worm in Paradise, Return to Eden, Dungeon Adventure, Adventure Quest, Collossal Adventure
Emma Heggie, 16 Riverbourne Rd, Milford, Salisbury, Wilts, SP1 1NS

Grange Hill, AfterShock, Brawn Free, The Experience, Heroes of Karn, Warlord, Forest at Worlds End, 3 Weeks in Paradise, Mindshadow
Mrs P Howard, 10 Overton Road, Abbeywood, London, SE2 9SD BT Gold: 74:MIK1511 Prestel 219997199

Subsunk, Sea Base Delta, Price of Magik, Heroes of Karn, Smugglers Cove, Redhawk, Message from Andromeda, Fantasia Diamond
Glenn Pinnock, 121 Long Grove, Baughurst, Basingstoke, Hants, RG26 5NX
Subsunk, Knight Tyme, Spytrek, Souls of Darkon, The Experience, Heroes of Karn, Kobyashi Naru
Robert Squires, 52 Broke Walk, Regents Estate, Hackney, London, E8 4SJ

Warlord, Keroes of Karn, Never Ending Story, Red Moon, Ship of Doom, Questprobe, Mordens Quest, Knight Tyme, Very Big Cave Adventure, Doomdarks Revenge, Boggit, Kobyashi Naru, Kentilla, Hobbit, Colossal Cave Adventure
Paul & Timothy Stitt, Site 101 Beaufort Heights, Beechill Road, Newtownbreda, Belfast BT8, N. Ireland. Tel: 0232 691603

Price of Magik, Worm In Paradise, Forest at the Worlds End, Heroes of Karn, Shogun, Knight Tyme, Colour of Magik, Spellbound
Iain Atlantic, 3 Alexandra Road, Morecambe, Lancs, LA3 1TH

Message from Andromedam Spytrek, Subsunk, Seabase Delta, Vera Cruz, Imagination, Forest at Worlds End
Mark Griffiths, 327 Tarbock Road, Huyton, Merseyside, L36 0SD

Imagination, Knight Tyme
Philip Howard, 82 Westwood Road, Stroud Green, Newbury, Berkshire

Mordons Quest, Forest at Worlds End, Jewels of Babylon, Soulsof Darkon, Dracula, Emerald Isle, Message from Andromeda, Red Moon, Lords of Time, Magic Sword, Smugglers Cove, Spytrek, Warlord, Heroes of Karn, Eric the Viking, Seabase Delta, Subsunk, Guardian, Robocide
Shirly Wall, 38 Glebelands, Westfield, Radstock, Bath, Avon, BA3 3SU Tel: 0761 33396

Aftershock, Warlord, Forest at Worlds End, Spytrek, Heroes of Karn, Mindshadow, Brawn Free (penfriends also wanted)
Debby Howard, 10 Overton Road, Abbeywood, London, SE2 9SD Prestel MBX 219997199

Subsunk, Seabase Delta, Heroes of Karn, Red Moon, Castle Blackstar
Richard Shield, 126 Carlinghow Lane, Batley, West Yorkshire, WF17 8DW Tel (0924) 474139

Worm in Paradise, Warlord, Never Ending Story, Subsunk, Pawn, Dungeons Ameth. Alchem. + Everything, Spellbound, Knight Tyme, Stormbringer, Heavy on the Magik
Guy Sanders, 78 Chesterfield Road, High Barnet, Herts, EN5 2RF

Heroes of Karn, Warlord, Rebel Planet, Mindshadow, Seabase Delta, Erik the Viking, Knight Tyme, Message from Andromeda, Hobbit, Gremlins, D.A.A.'n' Everything
Gavin Smith, 28 South West Avenue, Bollington, Macclesfield, Cheshire, SK10 5DS Tel: (0625) 73532.

Snowball, Spellbound, Mission 1, Heroes of Karn, forest at Worlds End, Message from Andromeda, Jewels of Babylon, Knight Tyme, Spellbound, The Boggit, Bored of the Rings, Subsunk, Hobbit, Trapdoor, Mordon's Quest, Espionage Island, Mindshadow, Fantasia Diamond
Iain Purdie, 56 Lyndhurst Grove, Low Fell, Gateshead, Tyne and Wear, NE9 6AX Tel: (091) 487 5788

Dungeons, Amethysts, Alchemists, Rebel Planet, The Never Ending Story, Kentilla, Heroes of Khan, Stormwrath, Return to Zarkon, Imagination, Kobyashi Naru.
Darrel Smith, 85 RogerLane, Newsome, Huddesfield, HD4 6PY. Tel 548659.

Star Wreck, Gems of Stradus, Forest at Worlds End, Jewels of Babylon, Message from Andromeda, Warlord, Red Moon, Snowball, Dugeon Adv, Adventure Quest, Hobbit, Necris Dome, Souls of Darkon, Lords of Time, Theseus, Robin of Sherlock, Bugsy, Mordens Quest, Questprobe III, Very Big Cave Adv,Boggit, Dodgy Geezers, Aftershock, Redhawk, Sorcerer, Hitch Hikers Guide, Nythyhel, Brawn Free, Arnold Blackwood Trilogy, Fantasia Diamond, Espionage Island, Mindshadow, Inca Curse, Bored of the Rings, Emerald Isle, Heroes of Karn, Spytrek, Subsunk, Hunchback, Seabase Delta,Never Ending Story, Knight Tyme, Kentilla, Apache Gold, Escape From Khoshima, Circus, Sphinx Adv, Woodbury End, Imagination, Stolen Lamp, Gremlins, Classic Adventure, Seas of Blood, Dungeons, Ameth, Alchem, Beer Hunter, Lord of the Rings, Zork 1, Dracula, Colossal Adv, Tomb of Kuslak,The Mural, Rebel Planet, The Fourth Protocol, Enchanter.
Darren Stephens, 65 Crown Road, Milton Regis, SittingBourne, Kent ME10 2AH, Tel 0795-73490.

Enchanter, Sorcerer, Spellbreaker, Zork I, II, III, Infidel, Leather Goddesses of Phobos, Adventure Quest, Aftershock, Angelique a Grief Encounter, Arnold Blackwood Trilogy, The Big Sleeze, Bugsy, Castle Blackstar, *Cursed by the City, Dracula, Dungeons, Amethysts, Alchemist 'n' everythin', Escape from Khosima, Espionage Island, Fantasia Diamond, Forest at Worlds End, Gremlins, Haunted House, The Hermitage, Heroes of Karn, Hunchback the Adventure, Imagination, Inca Curse, Jewels of Babylon, Kobyashi Naru, Lords of Time, Mansion, Message from Andromeda, Mindshadow, Monsters of Murdac, Mordens Quest, Mountains of Ket, Nova, Never Ending Story, Nythyhel, Planet of Death, The Pawn, Rebel Planet, Robin of Sherwood, Robicide, Seabase Delta, Sharpes Deeds, Ship of Doom, Souls of Darkon, Spytrek, Subsunk, Theseus, Top Secret, Very Big Cave Adventure, Warlord.*
G.L Wheeler, 2 Burford Close, Southdown, Bath, Avon BA2 1JF. Tel between 10 am and midnight, 0225-26919.

Contacting the Pilg...

The Pilg is always delighted to receive correspondence from readers on all aspects of adventuring. You can write to him c/o Amstrad Action, 4 Queen Street, Bath, BA1 1EJ. If you have access to BT Gold, you can send him an electro-scroll on 83:JNL251. Please be aware, however, that the Cowled Crusader cannot answer individual pleas for help. If you're well and truly stuck, call on the assistance of the Lords and Ladies who will be only too pleased to assist.

Next Month:

Infocom - update on the prospects for future Amstrad releases plus summary of the existing catalogue together with details of machine compatibility.
Pilg Programming - postponed, but not forgotten!
....Plus more reviews, news, and, of course, the steaming Clue Pot!

AA small ads

FOR SALE

THE DISC CONNECTION 12 amazing utilities including advanced copier, 200K format, directory and sector editors S.A.E for further details or cheque/postal order £6.99! T. McDonald, 46 Saywell Road, Luton, Beds LU2 0QF

CPC 464 Mono, modulator, Dart Light Pen, Tutorial Guide software including Mini Office. All boxed as new with full instructions. Bargain. £250. Hanworth, Middlesex. Buyer collects. Phone 01-898 2989 Evenings only after 6pm

AMSTRAD 3" DD1 DISC DRIVE. Brand New. Still boxed £90 O.N.O Tel: 01 907 3729 After 6pm

AMSTRAD CPC 464, colour monitor, disc drive, speech synthesiser, Music Maestro, Multiface II, Amdrum, joysticks, software worth over £1000, magazines. Everything is worth £2000. Sell for £700 o.n.o Phone Mark on (065883) 393

CPC 464 colour monitor, joystick, instruction book, 34 games. Complete £225 or offer. Lord, 13 Mullins Road, Braintree, Essex CM7 5QZ. Tel: 0376 26908

CPC 6128 colour monitor, AMX mouse, Protext disk, 'Advanced Amstrad Basic', 5 blank disks, over £150 of games. Speedking joystick. Under one year old £350 (9am-5pm) Tel: 021 749 6411 except Wednesday.

FOR SALE: COLOUR 464, £150: DDA Disc Drive, £65: Second Disc drive, £45: Taxan monochrome monitor, £50: MPI modulator, £7: Also software, books and manuals. Enquire for details. 0734 61314

AMSTRAD 6128 colour monitor second drive Rombox, Utopia, Maxam, Protext on rom. DMP 2000 printer, dust covers, 15 discs, cassette recorder cost £950. Sell for £650 o.n.o 4 months old. Tel: 0926 883105 after 6pm + £75 games.

CPC BUSINESS SOFTWARE: Accounts, VAT, Stock Control, Mailing List/Label Printer plus utilities all on one disc for only £24.95. "Small Business Booster - Has the lot" (AA26). Fully menu-driven & Epson compatible. Also Sales Invoicing only £14.95 or £9.95 with above pack. Add £2.00 p/p Abroad. Cheques, POs or SAE for details: SD Microsystems (AA), PO Box 24, Hitchin, Herts. (0462) 675106.

CPC 6128 with colour monitor, tape recorder, two joystick, £500 of games software, tips, pokes, two starter manuals. Still under five year guarantee. Offers on Bristol 0272 828459. Anything considered.

AMSTRAD 6128 colour monitor, disc drive, Mirage Imager, Tape-Disc transfer, loads of games, utilities, books, magazines, blank discs. Worth over £840. Sell for £450. Phone (01) 592 2382 after 5pm.

CPC 6128 ADDONS: Pace 51/4" 1Mb disc inc. MS-DOS conversion software £75. Rombo Video Digitiser £50. Grafpad II Digitising Tablet £45. All 2nd hand. Ring 01-311-1408

CPC 464 colour monitor, £350+ of software, Tasword, Pascal language, joystick adaptor £250 o.n.o. Phone after 6pm on weekdays and ask for Paul on Lytham (0253) 739586.

AMSTRAD LABEL PRINTING SYSTEM for CP/M 2.2. Send formatted 3" disk and £6 to: Mr Allen Reavie, 22 Mourneview Street, Portadown. BT62 3AW... and claim five utilities FREE! SAE for details.

UNUSED 3" DISKS. How much do you normally pay for a box of 10 three inch disks? £25 plus?. We are offering 10 unused disks for an incredible £18.95. First Byte Software, PO Box 50, Yeovil, Somerset. BA20 1XS. Tel: 0935 851265

INDEXES TO AMSTRAD MAGAZINES. Save hours of frustrating searching! SAE for details, stating years/magazines required. Brian Moore, Willow Cottage, Front Street, Hutton Henry, Hartlepool. TS27 4RH

WANTED

CHEAP 6128 KEYBOARD wanted. Not worried about condition as long as it works. Phone 0935 850958 after 7.30pm and ask for Ian.

AMSTRAD DD-1 DISK DRIVE and leads wanted. In very good working condition, at a reasonable price. Contact Simon on (0646) 686259 or write to 33 Church Street, Pembroke Dock, Dyfed SA72 6AR

ACADEMIC INTEREST? Send original copies plus SAE for high returns to: Top Flat, 109 High Street, Lewes, East Sussex, BN7 1XY

OTHER

DISC USERS! Want a free game? Send a disc and return postage (or £3.50 without disc) and get "Dripzone" totally free! "Shareware" 32 Bayview Road, Bangor, Co Down, N Ireland BT19 2AR. (State 464/664/6128)

MACROLINK. Machine code to 20K a day. Cheating? Naturally! MACROLINK a completely new concept in machine code programming. Free details write: I.R.D. 93 Pittneys, Paston, Peterborough.

This section of the magazine offers you the chance to speak directly to the huge waiting world of CPC owners — or would-be owners. Users report good results.

You can place an ad of up to 30 words for just £5

So you could use it to sell a printer or launch a user group or publicize a piece of software you've written.

One thing you can't advertise is the sale or swap of software. Such ads can be misused by pirates.

Fill in the application form and send it to us together with payment. We'll then place the ad in the next available issue (published 2-7 weeks after we receive your order.

Order form *Send to: AA Small ads, Future Publishing Ltd, 4 Queen Street, Bath BA1 1EJ*

Please place the following advertisement in the next available issue of Amstrad Action

Name ______________

Address ______________

____

____

Telephone ______________

I enclose payment of £7.50 by Cheque/P.O./Access/Visa.

Credit Card number ______________

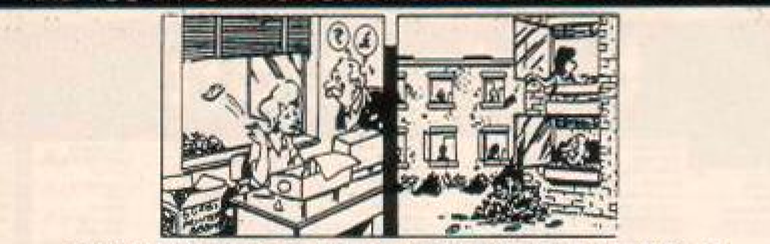
Credit card expiry date ______________

Please make cheques and POs payable to Future Publishing Ltd

Classification: ☐ For Sale ☐ Wanted ☐ Services ☐ User groups ☐ Other Date ______

Write your advertisement here, one word per box. Include your name and phone no. if you want them printed

ARE YOU THROWING YOUR MONEY OUT OF THE WINDOW



HAVE YOUR FABRIC RIBBONS RE-INKED FOR ONLY £1.50

or re-ink your own DPM 1/ DMP 2000/DMP 3000 by using our kit comprising of 1 spare ribbon 1 bottle of special ink and full instructions each ribbon will re-ink on average 40 times

ONLY ~~£12.95~~ £10.00 over one thousand units sold all ready

CPC 464 cassette based comp. with green screen & 17 games pack + joystick free £199.95	£189.95
CPC 464 cassette based comp. with colour screen & 17 games pack + joystick free £299.95	£284.95
CPC 6128 disc based comp. with green screen & 17 games pack + joystick free £299.95	£284.95
CPC 6128 disc based comp. with colour screen & 17 games pack + joystick free £399.95	£379.95
DMP 2000 over 100 typeface combinations including NLQ + our ribbon re-ink kit free	£159.00

NEW LOW PRICE 10 CF2 3" DISKS SUITABLE FOR 1st and 2nd DRIVE **ONLY £24.95**

CPC STARTER PACK 10 CF2 3" DISCS — 1 AMS 20L STORAGE BOX — 2000 SHTS PAPER 1 DMP RIBBON — 100 70X70 DISK LABELS — 100 ADDRESS LABELS £49.95

CONTINUOUS PAPER & DISC LABELS	OUR PRICE
200 sheets 60gm Draft	£14.95
1000 sheets 80gm	£12.95
500 address labels	£4.95
100 3" 31/2" floppy disc labels 69x70	£3.00
100 standard disc labels 55x35	£1.86
100 cassette labels 89x41 with cut outs	£3.00
DISC STORAGE BOXES	
AMS 20L holds 20 3" discs + boxes	£12.95
10 3" spare disc boxes	£3.50

UTILITIES	CASS RRP	OUR PRICE	DISC RRP	OUR PRICE
Bonzo Super Meddler	7.50	5.00	11.50	10.75
Bonzo's Doo-Dah			11.50	10.75
Bonzo Blitz			10.00	9.00
Tascopy	9.90	8.90	12.95	11.65
Tasdiary			12.90	11.61
Tasprint	9.90	8.90	12.95	11.65
Tasspell			16.50	14.85
Tasword	19.95	17.95	24.95	22.45
Mini Office 2			14.95	13.45
Masterfile 3			39.95	35.95

TOP TWENTY GAMES	CASS RRP	OUR PRICE	DISC RRP	OUR PRICE
Indiana Jones	9.99	8.99	14.99	13.49
Renegade	8.95	8.05	14.95	13.45
Paperboy	8.95	8.05	14.99	13.49
World Class Leaderboard	9.99	8.99	14.99	13.49
Game Set Match	12.95	11.66	17.95	16.15
Live Ammo	9.99	8.99	14.95	13.45
Comp Hits 10 Vol 4	9.95	8.95	14.95	13.45
Six Pak 2	9.95	8.96	14.95	13.46
Tai Pan	9.99	8.99	14.99	13.49
Barbarian	9.99	8.99	12.95	11.66
Road Runner	9.99	8.99	14.99	13.49
Six Pak	9.95	8.96	14.95	13.46
Freddy Hardest	8.95	8.06	14.95	13.46
Leaderboard	9.95	8.96	14.95	13.45
Trantor	9.99	8.99	14.99	13.49
Jack The Nipper 2	8.99	8.09	14.99	13.49
Mask	9.99	8.99	14.99	13.49
Exolon	8.95	8.06	14.95	13.46
Wizball	8.95	8.06	14.95	13.46
F15 Strike Eagle	9.95	8.95	14.95	13.46

Send for our catalogue of over three thousand titles for Amtrad CPC — PCW — PC — Commodore Spectrum Atari/Atari ST BBC MSX Electron Apple series 2 — Apple Macintosh computers all at discount prices

All prices include VAT Post & Packaging UK only. Export orders welcome

VISA

COMSOFT APPOINTED AMSTRAD COMPUTER DEALER

COLDSTREAM COMPUTER CENTRE 48 DUKE STREET, COLDSTREAM, SCOTLAND. TD12 4LF
SHOP OPEN MON/SAT 9.30-12.00 1.00-5.30 TEL: 0890 2979. 24 HOUR ORDER SERVICE ON 0890 2854

ARE YOU THROWING YOUR MONEY OUT OF THE WINDOW

SHEKHANA COMPUTER SERVICES

ORDER BY ACCESS + VISA CREDIT HOTLINE 01-348-2907 (24 HRS)

** AMSTRAD **	OUR PRICE	** AMSTRAD **	OUR PRICE	** AMSTRAD **	OUR PRICE
Bubble Bobble – D2	6.95	Guild of Thieves – Disk	14.95	Firetrap – D2	7.50
Flying Shark – D2	6.95	Knight Orc – D3	11.95	Vulcan	7.95
Druid II – D2	6.95	Carrier Command – D3	11.95	Arenham	7.95
Gauntlet II – D4	7.50	Elite Six Vol.2 – D2	7.95	Desert Rats	7.95
Road Runner – D2	7.50	Rampage – D2	7.50	Street Basketball – D2	7.50
Out Run – D2	7.50	Jinxter – Disk	14.95	Ocean 5 Hits – D2	7.95
Silicon Dreams – D4	11.95	Time + Magik – D3	11.95	Foot Manager 2 – D2	7.50
Nemesis – D2	6.95	Annals of Rome – D3	10.95	Sold a Million 3 – D2	7.95
Batt'field Germany – D3	10.95	Knightmare – D2	7.50	Buggy Boy – D2	7.50
The Pawn – Disk	14.95	Enduro Racer – D2	7.95	Knightmare – D2	7.95
Paper Boy – D2	6.95	720 – D2	7.50	Hitchhikers Guide	24.95
Elite – D3	9.95	Charlie Chaplin – D2	7.50	Indiana Jones – D2	7.95
Imp Mission 2 – D2	7.50	The Music System – D3	12.95	Grand Prix (N.Mansell) – D2	7.95
Stargilder – D3	11.95	Adv Music System – Disk	24.95	Iron Horse – D2	6.95
Jewels of Darkness – D3	11.95	Bob Sleigh – D2	7.50	A.T.F. – D2	6.95
Sentinals – D2	7.50	OCP Art Studio – Disk	14.95	Salamander – D2	6.95
Mask II – D2	7.50	Ikari Warrior – D2	6.95	Acrojet – D2	7.95
Scrabble – D2	7.95	Rygar – D2	7.50	Cpt. America – D2	7.50
+ Mini Office II – D4	12.95	Super Hang On – D2	7.50	Wizards Warz – D2	7.50
Deluxe Scrabble – Disk	13.95	Pegasus Bridge – D3	10.95	Spy V Spy III – D2	7.50
Alt World Games – D2	7.50	Thunder Cats – D2	6.95	The Eagles Nest – D2	6.95
Master of Universe(movie)-D2	7.50	Gun Ship – D4	12.95	Shadow Skimmer – D2	6.95
Linekers Soccer – D2	7.95	Driller – D3	12.95	10 × 3" Disks	26.95
Scalextric – D2	7.95	Compendium – D2	7.50	G.Gooch Cricket – D2	7.50
Sorcerers Lord – D3	10.95	Blood Valley – D2	7.50	Glider Rider – D2	6.95
World Leaderboard – D2	7.95	The Trap Door – D2	7.50	Indiana Jones – D2	7.50
Azimuth (Head Align)	7.95	Roy of Rovers – D2	7.50	Quartet – D2	7.50
Side Arms – D2	7.50	Bravestarr – D2	7.50	Wonder Boy – D2	7.50
Combat School –D2	6.95	Ramparts – D2	7.50	*** PC 1512 ***	
Flash Point – D2	6.95	Slaine – D2	7.50	Elite	19.95
Gryzor – D2	6.95	+ Masterfile III	34.95	Starglider	14.95
Mad Balls – D2	6.95	Califronia Games – D2	7.50	Jinxter	19.95
T.T. Racer – D2	7.50	World Games – D2	7.95	Guild of Thieves	19.95
Match Day 2 – D2	6.95	*** ACCESSORIES ***		The Pawn	19.95
Mercenary – D4	7.95	Discology	13.99	Carrier Command	19.95
The Last Ninja – D2	7.50	ESP Light Pen (464)	17.50	ESP Light Pen	17.95
Judge Death – D2	7.50	ESP Light Pen – 6128	24.95	Cheetah J/Sick + Card	49.95
Magnificent Seven – D2	7.95	Discovery Plus	12.99	*** PCW 8256/8512 ***	
Monopoly – D2	7.95	Master Disc	12.99	Starglider	19.95
L.C. People – Disk	12.99	Multiface II	45.95	Jinxter	19.95
Phantys – D2	6.95	Euromax Non-Autofire	16.95	AMX Mouse	69.95
Tomahawk – D2	7.95	Joycon-Twin J/Stick	6.50	ESP Light Pen + Graphic	69.95
Pacs Lend	6.95	Comp Pro 5000	14.95	Knight Orc	15.95
Bomb Jack II – D2	6.95	Cheetah Mach I	14.95	The Pawn	19.95
Pyscho Soldier – D2	6.99	Konix Joystick	12.99	PCW J/Stick Interface	14.95
Silent Service – D2	7.95	Print Master	12.99	Time + Magik	15.95

D=Disk version available. D1=AT 11.99,D2=AT 12.99,D3=14.99,D4=AT 16.95

Special offer while stocks last 3" disks box of 10 only 26.95 inc. P+P

MAIL ORDER: CHQ/P.O TO
S.C.S. (A.A.), 655 GREEN LANES, LONDON N8 0QY

P+P INCLUDED IN U.K. EUROPE ADD £1 PER ITEM. ELSEWHERE ADD £2 PER ITEM
+ DENOTES ITEMS ONLY AVAILABLE FROM: S.C.S. 655 GREEN LANES, N8 0QY
Personal callers please produce this advert at our shop for above discounts at
S.C.S. UNIT 5, 221 TOTTENHAM COURT ROAD, LONDON W1R 9AF
(Near Goodge Street Tube Station) OPEN 6 DAYS A WEEK 10.00 – 18.00PM
or at 655 GREEN LANES, LONDON N8 0QY (near Turnpike Lane Tube Station)
ACCESS AND VISA HOT LINE PLEASE RING 01-348-2907 / 340-8565 / 631-4627
Credit card orders despatched same day – subject to availability
NEW RELEASE SUBJECT TO RELEASE FROM SOFTWARE HOUSE, PLEASE RING TO CONFIRM AVAILABILITY OF NEW RELEASES

VISA

5¼" MEGADRIVE

Now available in **TWO** types

MEGADRIVE ONE – The full **MEGADRIVE, 796K** formatted capacity under **CPM+** and **AMSDOS,** switchable 40/80 Track for MSDOS i.e. IBM data transfer, supplied complete with ALL software. Also does many other file transfers. **£199.95**

Also available without file transfer software at **£179.95**

MEGADRIVE TWO – for use under **CP/M+,** gives **796K** formatted capacity with 128 directory entries or 792K with 256 directory entries, also give 173K with **CP/M2.2** and **AMSDOS** **£139.95**

3½" MEGADRIVE

3½" MEGADRIVE, specification as for the **5¼" MEGADRIVE ONE,** will handle data transfer from 3½" discs in many formats including IBM.

Including transfer software **£189.95**

Without transfer software **£169.95**

3½" as for MEGADRIVE TWO **£129.95**

AMRAM-2 The definitive sideways **RAM** unit for **YOUR** Amstrad, **TWO 16K** user addressable ROM slots, 4 sockets for your own ROMS, software to **copy ANY ROM to DISC,** full editing of any ROM BATTERY BACKED UP for upto 10 YEARS!!

Available NOW at **£69.95**

PLEASE ADD £3.00 postage, packing and insurance to all the above prices.

SILICON SYSTEMS

43 ELSINORE ROAD, MANCHESTER M16 0WG.
Telephone Nos:
061-848 8959 · 061-848 7263 · 083-652 0082

BEAU-JOLLY BONANZA

50 superb compilations up for grabs as a bonus Christmas bonanza



Everybody buys compilations at Christmas, but now you've the chance to get your hands on two of the best for absolutely nothing. We've got 25 copies of *Computer Hits 10:4* and 25 of *Five Star Games 3*, just waiting to be won. If that weren't enough there's also a first prize of every Beau-Jolly compilation for the Amstrad – *Computer Hits 10 Volumes 1-4* and all three packs of *Five Star Games*, that's over 50 games that may take the whole of '88 to play.

Just to whet your appetite here are some of the titles on these two outstanding compilations, both of which have two bonus games on them:

Computer Hits 10 Vol: 4

★ Spindizzy
A massive Mastergame in issue 6, with a highest ever rating of 96%. It's a brilliant combination of delightful grapic landscapes, joystick wrenching action and brain twisting puzzles. An all-time classic.

★ Revolution
Another Mastergame that combines the best of arcade action with wicked puzzles. Graphics and gameplay that will put your head into a spin.

★ Antiriad
An arcade adventure that we really Raved over. Originally by graphic-masters Palace, this combination of past and future proved addictive and very challenging.

★ Deactivators
Ariolasoft turned the world upside down, sideways, played around with gravity and then tried to blow you up. This Rave tested every brain cell and reflex action to the limit.

Making up the twelve are: *Pulsator, Triaxos, Starquake* (all Raves), *Cityslicker, Bride of Frankenstein, Uchi Mata, Elektraglide* and *Dandy*. Truly a collection with something for everyone.

Five Star Games 3

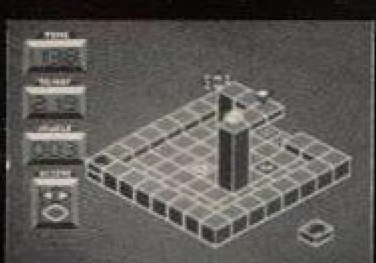
★ Tau Ceti
An amazing search for nuclear rods on the surface of a hostile planet. Everything is thrown at you in one of the classiest space games since *Elite*.

★ Aliens
The British version, with so much atmosphere that you won't want to play it alone or at night. The tension is unbearable as you try to stay alive.

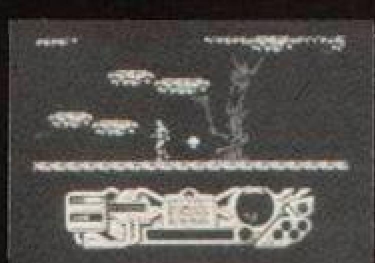
The other five games are: *The Trap Door, Tempest, Firelord, Strike Force Harrier* and AA's first Mastergame, *Way of the Exploding Fist*. All six other games were AA Raves, what a group!

To be in with a chance of winning one of these tremendous compilations all you have to do is answer three simple questions:

1. Which game is this a screenshot of?
a. Spindizzy
b. Revolution
c. Triaxos



2. Which game is this a screenshot of?
a. Antiriad
b. Starquake
c. Deactivators



3. Which game is this a screenshot of?
a. Tau Ceti
b. Aliens
c. Firelord



Once you know the answers just write them in order on the back of a postcard and send them to: Beau-Jolly Comp, Amstrad Action, 4 Queen Street, Bath BA1 1EJ. You're only allowed one entry per person and they should reach us by January the 15th. Don't forget to include your own name and address so that we know who to send the prizes to. The winners will be decided by drawing out of the hat of correct entries.

Q. Which new entertainment software is alluring, addictive, AA raved and available absolutely free of charge on cassette or disk?

A. Any one of these titles when you take out a subscription to Amstrad Action.

Incredible but true. Subscribe to the leading magazine for Amstrad CPC owners and we'll send you your choice of one of the programs on the opposite page for nothing. That means up to £14.99 worth of software free of charge for disk owners. And people who ask for the *cassette* version of the game will *also* get a free copy of the famous 4000-location epic *Lords of Midnight*. (RRP £8.95), making their saving almost £20.

A 12-issue subscription to Amstrad Action costs £16.50, and guarantees a year's supply of your favourite magazine delivered hot off the press direct to your door.

To order, just turn the page and fill in the form, or dial 0458 74011 with your credit card details.

It could be the best favour you do yourself for 1988.

EXTRA SUBSCRIPTION GIFT FOR CASSETTE USERS!

As if one free game wasn't enough, here's another: a free copy on cassette of the huge, multi-character epic Lords of Midnight. This title, by top programmer Mike Singleton, was raved over in the very first issue of Amstrad Action. After two years it's still a classic offering hours of very special entertainment. Set in an immense, beautifully depicted landscape you have to take on invading armies of Doomdark by controlling four different characters.

We'll include it as a bonus to every new subscriber who opts for the *cassette* version of one of the other games high-lighted on this page. (Sorry, disk users, but you're getting an expensive enough gift as it is!)

HOW TO ORDER

Just turn the page and use the order form (the order codes are listed next to the form). Or telephone us with your credit card details on 0458 74192 (24-hour answerphone).

ANY ONE OF THESE PROGRAMS **FREE** WHEN YOU SUBSCRIBE!

Or buy them separately for the special price of £6.95 cass, £11.95 disk.

XOR

Normal shop price £9.95 cass, £14.95 disk

- AA Mastergame from Logotron
- A unique program where success depends on brainwork, not joystick skill.
- Escape from 15 huge mazes, each with its own devious set of puzzles.
- Work out how to move and manipulate the game objects without getting trapped.
- Fiendishly difficult. Impossibly addictive.

KILLED UNTIL DEAD

Normal shop price £9.99 cass, £14.99 disk

- Original, intriguing and humouous murder mystery game.
- 20 complicated murder plots you must uncover.
- Five whodunnit authors you must interrogate.
- AA Rave from US Gold

TRANTOR

THE LAST STORM-TROOPER

Normal shop price £9.99 cass, £14.99 disk

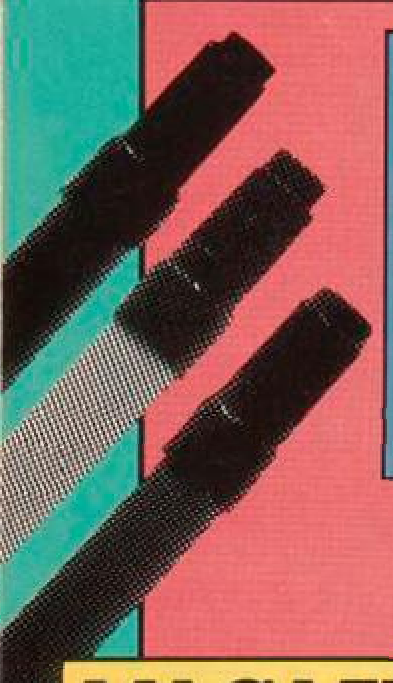
- US Gold's futuristic, fast-paced shoot-em-up.
- Fight your way through a five-level multi-cave complex.
- Large animated figure with spectacular flame-thrower.
- Horrifying variety of enemies.
- AA Rave.

FREDDY HARDEST

Normal shop price £8.95 cass, £14.95 disk

- AA Rave from Imagine set on alien planet.
- Horizontally-scrolling shoot-em-up + multi-level exploration + combat.
- Large number of colourful, superbly-animated monsters.
- Programmed by the Spanish team behind Game Over + Army Moves.
- Lots of thought. Lots of action.





HIGHLIGHTER PENS

Three for £1.50

Anyone who uses computers a lot, can make use of highlighter pens. For marking the important lines in a document or printout or program listing. For ensuring a key sentence in a manual isn't forgotten. Or just for highlighting the main points in an Amstrad Action article.

We're offering a set of three different-coloured AA-stamped pens in a clear plastic wallet for just £1.50. They're high-quality and long-lasting. A good way of focussing attention on things that matter.

BACK ISSUES

Expand your Amstrad Action co

If you're one of the thousands of readers who've jo catch up on some of the good things you've misse of the back issues listed below, which we're selling

Issues 8 and 16 may be of particular interest, as software. Two series also went down very well. Am absolute beginners ran from issues 8-17, while a se ran from 10-17. All issues contain numerous game

ISSUES 1-6 SOLD OUT!
ISSUE 7 £1.00. Educational softwa
ISSUE 8 £1.50. COVER CAS
(an AA Rave) The C
ISSUE 9. Fo
revie
IS
IS
Co
ISSU
Progr
ISSUE
playing
ISSUE 1
Price of M
ISSUE 15.
ISSUE 16.
of Druid, plus
ISSUE 17. £1
Numerous Type
ISSUE 18. SOL
ISSUE 19 £1.00
ISSUE 20. £1.00
ISSUE 21. £1.25 Ty
ISSUE 22. £1.25 He
ISSUE 23. £1.25 Lau
ISSUE 24. £1.25 Revie
ISSUE 25. £1.25 Create
reviewed.
ISSUE 26 £1.25 Special



MAGAZINE BINDERS

Only £4

Amstrad Action is a magazine worth collecting, and our sturdy, custom-built binders provides the best way of keeping your collection tidy and in good condition. Each one is designed to hold 12 copies of AA and preserve them for posterity – and easy future reference.

As well as being functional, the binders look every bit as good as the magazine. They're coloured a smart royal blue with the magazine logo printed in blocked Newvap Gold on the spine and front. Individual magazines are held in place by one of 12 wires.

Buy one and you can have a year of CPC info at your fingertips.

Send this form plus payment to: **AA Mail Order, The Old Barn, Somerton, Somerset, TA11 7PY**

ORDER FORM – AA 24

Name..Telephone no. (if poss)........................

Address..

....Post code.......................

Machine owned: ❑ CPC 464 ❑ CPC 664 ❑ CPC6128

Please send me the following items from the Amstrad Action special offer pages.

ORDER CODE	DESCRIPTION	PRICE

TOTAL PAYABLE

Please circle your method of payment: ACCESS • VISA • CHEQUE • PO

Make cheques + postal orders payable to FUTURE PUBLISHING LTD. If paying by credit card, please enter details:

CREDIT CARD NUMBER **EXP. DATE**

• USE THESE

Details of these products are give

ITEM	OUR PRICE	ORDER CODE
SUBSCRIPTION		
with XOR cass*	£16.50	A250
with XOR disk	£16.50	A251
with FREDDY H cass*	£16.50	A252
with FREDDY H disk	£16.50	A253
with TRANTOR cass*	£16.50	A254
with TRANTOR disk	£16.50	A255
with KILLED u. DEAD cass*	£16.50	A256
with KILLED u. DEAD disk	£16.50	A257
*Cass options include *Lords of Midnight* on cassette as free extra.		
XOR CASS	£6.95	A258
XOR DISK	£11.95	A259
FREDDY HARDEST CASS	£6.95	A260
FREDDY HARDEST DISK	£11.95	A261
KILLED UNTIL DEAD CASS	£6.95	A262
KILLED UNTIL DEAD DISK	£11.95	A263
TRANTOR CASS	£6.95	A264
TRANTOR DISK	£11.95	A265

...ection!

...ed Amstrad Action only recently, you'll want to ...e's how to do it. We have limited numbers ... cover price with post and packing free. ... include free cassettes packed with good ... Wilton's programming course in Basic for ... of articles on the CP/M operating system ...views, Type-Ins and Pokes.

... reviewed. Tips on Elite.
...SETTE containing the complete PSS game ...nant.
...page playing guide to Batman. Printer ...
...E 10. SOLD OUT!
...E 11. £1.00 Pokes for Batman, Bounder, The ..., Tau Ceti.
... £1.00 Big disc drives, Starstrike II, ...ing Pascal.
... £1.00 7-page music special, Knight Tyme ...
... £1.00 Art Studio review, maps of Dan Dare, ...
...LD OUT!
... COVER CASSETTE containing free level ...erous utilities.
... Pagemaker review. Red Boxes review.
...
...OUT!
... Mode special. ROMs and EPROMs.
... of ingenious gadgets and add-ons.
... special including Card Trick program.
... Over Heels Poke + 5-page playing guide.
... of Word-Processing series. Utility Type-ins.
... of Tas Sign, Pocket Protext, Exolon.
... own Trivia quiz program. RODOS
... music interface.

THE THINGI

Only £5.95 – save £2!

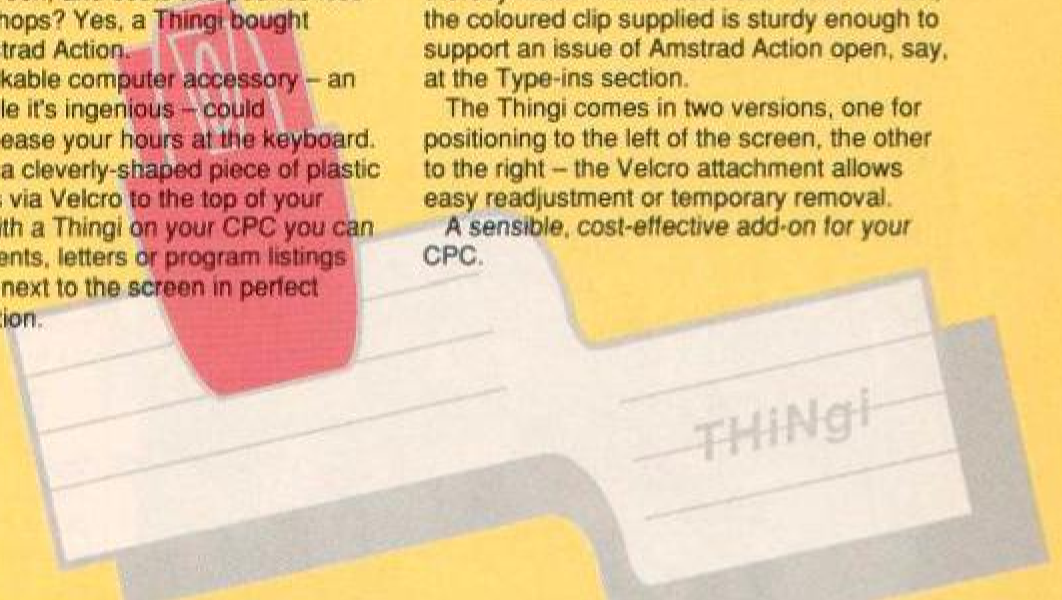
What's white, dangles paper next to your computer screen, and costs two pounds less than in the shops? Yes, a Thingi bought through Amstrad Action.

This remarkable computer accessory – an idea so simple it's ingenious – could dramatically ease your hours at the keyboard. It's basically a cleverly-shaped piece of plastic that attaches via Velcro to the top of your micro. But with a Thingi on your CPC you can have documents, letters or program listings clipped right next to the screen in perfect reading position.

Any task involving copying off paper is thereby made much easier and faster. In fact, the coloured clip supplied is sturdy enough to support an issue of Amstrad Action open, say, at the Type-ins section.

The Thingi comes in two versions, one for positioning to the left of the screen, the other to the right – the Velcro attachment allows easy readjustment or temporary removal.

A sensible, cost-effective add-on for your CPC.





DISK BOX!

Only £12.95 – including free blank disk!

This will do for your disks what an AA binder does for your AAs. Keep 'em tidy. The box is made from top-quality perspex and features a tinted, hinged, lockable lid.

It's specially designed to take Amstrad 3" disks and will hold and display 20 including their cases or 40 without cases. A set of 20 dividers included with the box can be used to lay your hand instantly on the disk you need. A classy way to keep your worktop organised.

AA DUST COVERS

2-piece set only £6.95

Let's face it, computers don't like dust. Over a period of time it can make them very ill indeed: disk drives and cassette decks in particular can suffer serious, sometimes fatal damage.

A set of dust covers provides a neat solution. And there's the added bonus of smartening up the hardware's appearance when it's not in use.

The specially-commissioned Amstrad Action covers are made from high-quality, water (and coffee) proof PVC. They're coloured a gentle beige with smart blue trimming and matching AA logo.

You can order a 2-piece set tailor-made for your CPC system – just choose the correct order code from the list next to the order form.

...ORDER CODES

...er here and on the preceding pages

ITEM		OUR PRICE	ORDER CODE
AA DUST COVERS			
	CPC 464 mono	£6.95	A208
	CPC 464 colour	£6.95	A209
	CPC 664 mono	£6.95	A210
	CPC 664 colour	£6.95	A211
	CPC 6128 mono	£6.95	A212
	CPC 6128 colour	£6.95	A213
THINGI	left-of-screen	£5.95	A214
	right-of-screen	£5.95	A215
DISK BOX (with free disk)		£12.95	A216
AA BINDER		£4.00	A217
3 AA HIGHLIGHTER PENS		£1.50	A266
AA BACK ISSUES			
	ISSUE 7	£1.00	AA7
	ISSUE 8	£1.50	AA8
	ISSUE 9	£1.00	AA9

For issues 10-26 use codes AA11-26.
The price of each issue is listed in the Back Issues panel on this page.

24-HOUR HOTLINE

☎ 0458-74192

VISA

Access

If you own Access or Visa credit cards you can place your order by telephone at any time of day or night, seven days a week. Just dial 0458-74192 and be ready with your name and address, credit card number and expiry date, and the details of the software you wish to order. Alternatively, if you prefer a human being to an answerphone, you can ring 0458-74011 during office hours and ask for "Credit Card Orders".

REAR VIEW

A sideways look at the world of computing, plus Sugarman!

Aerial Entertainment



Coming soon – the first football game designed to be played in helicopters. Now you too can clamber over the cyclic and collective while trying to put your shorts on. The amazing thrill of losing the ball out of the window. And not forgetting the crowning glory – decapitating the ref in the rotor blades.



The Joy of Konix

Pictured here are Ian Stewart of Gremlin and Wyn Holloway of Konix. I don't know who the two at the sides are but I'd like to. They're promoting the Konix Speedking joystick and a Gremlin game.

You can tell Ian likes the Speedking, the merest touch of it obviously sends shivers down his spine. Either that or the Gremlin gremlin just goosed him.

Spot the Ball

One of these faces belongs to Gary Bracey, software manager of Ocean. The other two haven't been identified yet, but we have a sneaking suspicion that they were responsible for releasing Knight Rider and have suffered the consequences.

Now all you have to do is tell me who the two hands belong to and what their owners are doing out of shot.





FIREBIRD



HOT FROM THE ARCADES, FLYING SHARK IS THE ULTIMATE SHOOT-EM-UP FROM TAITO. BOMB AND BLAST YOUR WAY INTO ARCADE HISTORY.

Spectrum £7.95 Commodore & Amstrad £8.95 (£12.95 & £14.95 d) Atari ST £19.95

PUBLISHED BY FIREBIRD SOFTWARE, A DIVISION OF BRITISH TELECOM PLC. FIRST FLOOR, 64-76 NEW OXFORD ST. LONDON WC1A 1PS



DON'T MISS!..!
5
ALL-ACTION COMPUTER HITS
LIVE AMMO
ARMY MOVES
You are a member of the SOC (Special Operations Corp) a crack regiment of Specialist Commandos picked for the most dangerous missions.
Locked in a safe at the emeny headquarters is information . . . information so vital that the turning point of the conflict depends upon its discovery. To get to the headquarters means crossing jungles and deserts, manipulating many forms of transportation and harnessing a variety of weapons systems.
Only the best will succeed on this deadly venture . . . Will you be one of them?
© Game Design Dinamic
RAMBO FIRST BLOOD PART II
The box-office smash converted for your home-micro that rocketed to the No. 1 spot is now offered to you in this amazing LIVE AMMO action pack. As Rambo you have a formidable array of weapons which you will need against an equally formidable enemy. Rescue your friends and escape by helicopter—if you get that far!
© 1985 Anabasis Investments N.V.
All rights reserved. TM used by Ocean Software Limited under authorisation of Stephen J. Cannell Productions. Licensing Agent.
GREEN BERET
RESCUE THE CAPTIVES!
You are the GREEN BERET, a highly trained combat machine. Your mission: infiltrate all four enemy Strategic Defense installations—you are alone against immeasurable odds, have you the skill and stamina to succeed? A slick conversion of the arcade favourite displaying all the play features of the original.
© Konami
TOP GUN
The "TOP GUN" game puts you in the pilot's seat of an F-14 jet fighter. 3-D vector graphics and split screen display allow one or two players to combat head to head or against the computer. Your armaments in this nerve-tingling aerial duel are heat seeking missiles and 20mm rapid fire cannon. Many skills have to be brought in to play such as reflexes, manoeuvring ability and accuracy to become the best of the best. "Top Gun" mavericks enter the danger zone!
TOP GUN TM & © 1986, 1987 Paramount Pictures Corporation. All Rights Reserved.
THE GREAT ESCAPE
The year is 1942, the place Germany. War has broken out and you have been captured and placed in a high security P.O.W. camp. Victory may be far away, so it is your duty to escape, but this will not be easy. It will take careful planning and much patience, culminating in a skilful and resourceful implementation. In the camp you are closely guarded but while you follow the daily routine you will need to slip away unnoticed to reconnoitre the situation and collect tools and materials necessary for your chosen escape route. There are many avenues of escape, some difficult, all certainly dangerous and each one requiring different skills or equipment.
Game Design Copyright Denton Designs 1986
Screen shots taken from various computer formats
LIVE AMMO
ocean
5 ALL-ACTION COMPUTER HITS
AMSTRAD COMMODORE SPECTRUM
9.95 CASSETTE
AMSTRAD COMMODORE SPECTRUM
14.95 DISK
Ocean Software Limited · Ocean House · 6 Central Street · Manchester · M2 5NS · Telephone 061 832 6633 · Telex 669977 Oceans G